



# Competition between Equitycrowdfunding Platforms: Network Effects Vs. Matching Efficiency

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# Agenda

- » Introduction
- » Research Statement
- » Literature Review
- » Model
- » Findings
- » Conclusion

# Crowdfunding Industry

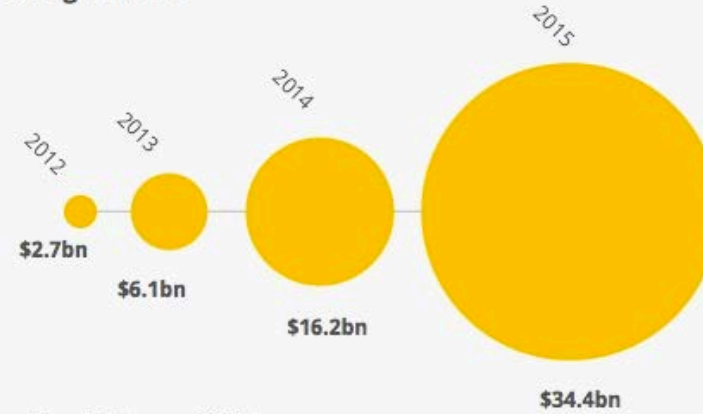
## Types of Business Crowdfunding

**InvestNextDoor**

| REWARDS<br>Product or Services                                       | DEBT<br>Interest on Funds                            | EQUITY<br>Ownership   |
|--|--|---|
|  |  |   |
| <b>Good For:</b><br>Arts / Charity / New Products                    | <b>Good For:</b><br>Main Street Businesses           | <b>Good For:</b><br>Start Up / Corporation                      |
| <b>Funds Raised:</b><br>   | <b>Funds Raised:</b><br>                             | <b>Funds Raised:</b><br>  |
| <b>Supporters</b><br>  | <b>Investors</b><br>                                 | <b>Investors</b><br>  |
| <b>Rewards in 3-6 months</b><br>                                     | <b>Interest over 1-3 years</b><br>                   | <b>Returns take 5-10 years</b><br>                              |
| <b>Costs Include:</b><br>Reward, Shipping, Taxes on Income, Platform | <b>Costs Include:</b><br>Interest, Filings, Platform | <b>Cost Include:</b><br>Ownership, Dividends, Filings, Platform |

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Total Funding Volume



Total Funding Volume: 2015

\$34.44bn



Source: Massolution 2015CF

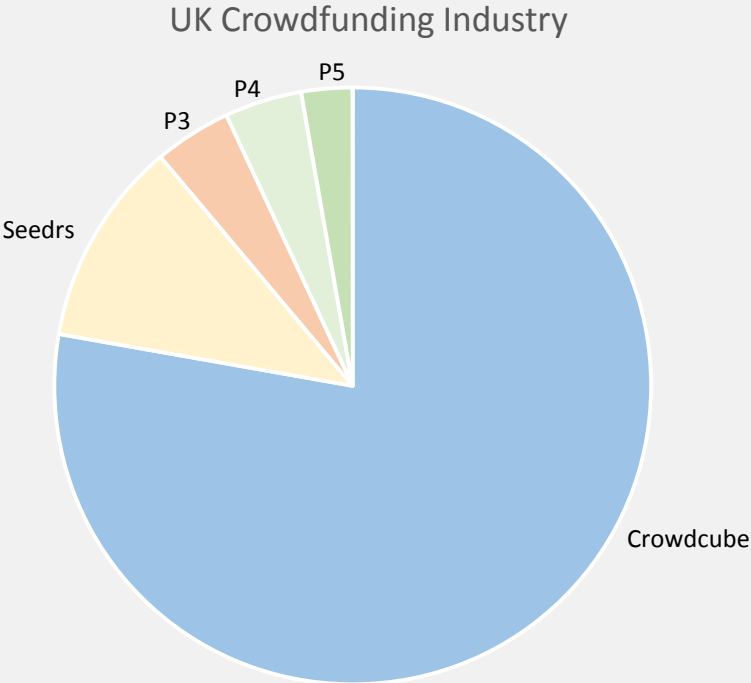
Growth by crowdfunding model prediction for 2015 in millions of USD (research based estimate).

# Multiple Platforms and Presence of Asymmetries

US Crowdfunding Platforms

| Platform    | Raised to Date | Investments |
|-------------|----------------|-------------|
| Angellist   | \$248,219,051  | 275         |
| Equitynet   | \$137,273,855  | 579         |
| Crowdfunder | \$107,886,625  | 134         |
| Fundable    | \$80,615,590   | 42          |
| Seedinvest  | \$49,475,025   | 36          |
| Wefunder    | \$38,793,650   | 23          |
| Earlyshares | \$22,955,248   | 21          |
| Onevest     | \$19,852,292   | 26          |

Source: Fundwisdom.com



Source: Crowcube blogs

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# Research Questions

How do we characterize the nature of competition between equity crowd funding platforms?

Is there place for multiple platforms?

How does the choice of pricing structures influence competition

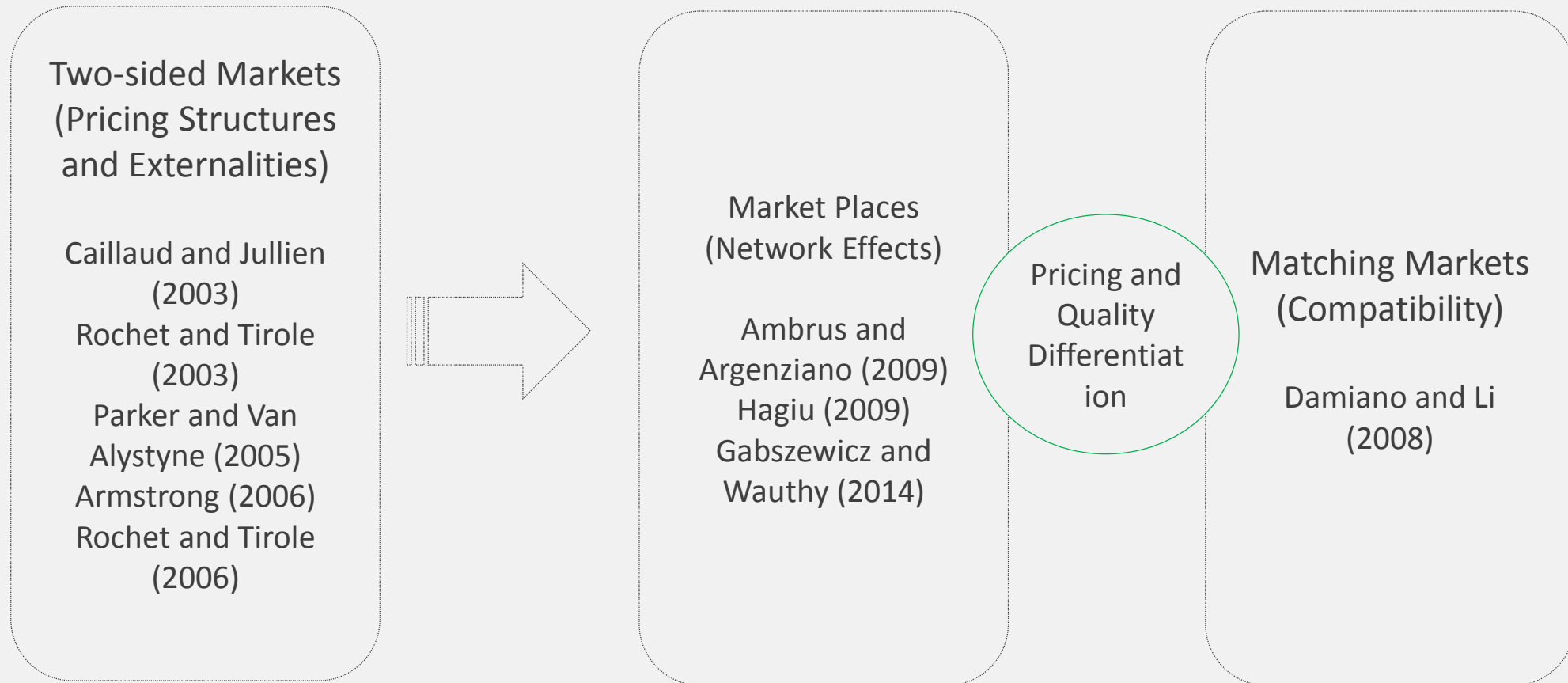
# Literature Review

## Crowdfunding

|                                   | Rewards –based crowdfunding                                     | Debt-based crowdfunding   | Equity crowdfunding                              |
|-----------------------------------|---|---|--|
| Funder, Lender, Investor Behavior | Burtch et al. (2015)<br>Chen et al. (2015)<br>Hsu et al. (2015) | Zhang and Liu (2012)<br>Burtch et al. (2014)<br>Lin and Wei ( 2015) | Kim and Viswanathan (2016)                       |
| Project or Funding Success        | Mollick (2014)  | Burtch et al. (2016)  | Ahlers et al. (2015)                             |
| Strategic Issues                  | Agrawal et al. (2015)<br>Lin and Viswanathan (2015)             | Wei and Lin (2016)  | Competition: Pricing and quality differentiation |

# Literature Review

## Two-sided Markets



# Platform – Matching Startups and Investors

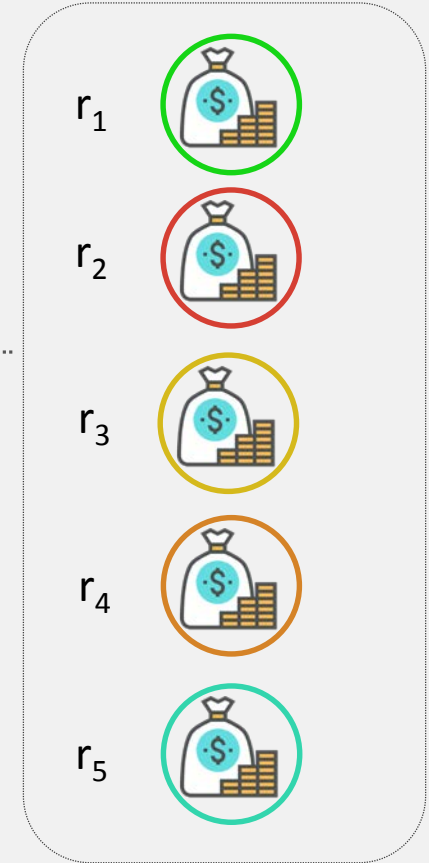
Startups (Growth Factor)



Platform (Price, Quality)



Investors (Risk Appetite)



Compatibility  
Network Size

Compatibility



# Pricing Strategies



Charging Startups

EquityNet<sup>®</sup>

CircleUp

Charging Investors

AngelList

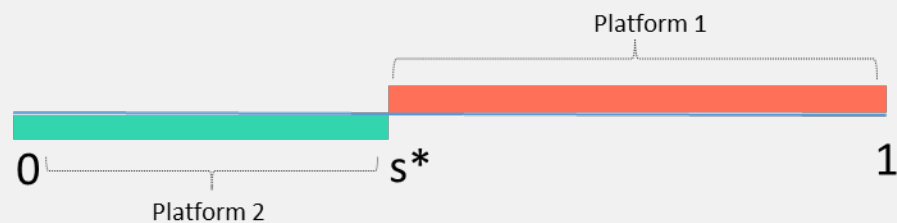
FundersClub



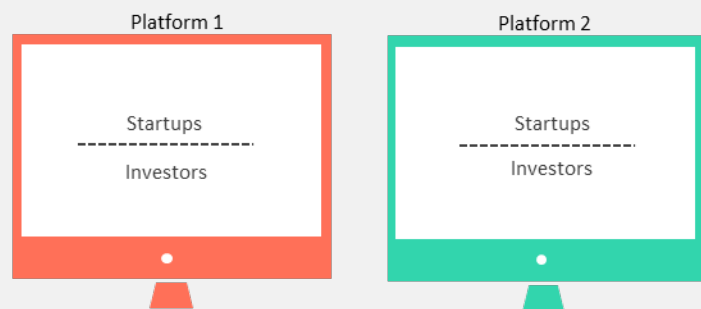
Charging Startups  
and Investors

wefunder

# Model



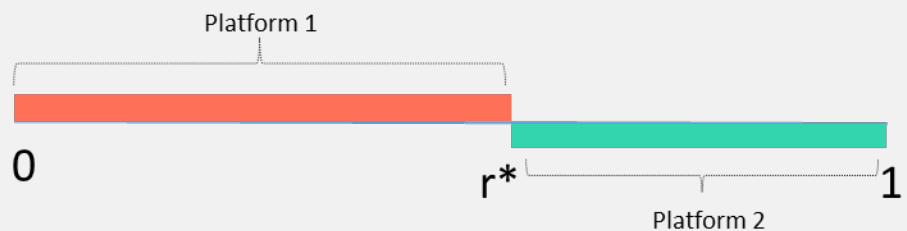
Startups:  $EU^s(s) = K_s + \beta[\text{expected size of } T_s] + \alpha E_r[(s - r)^2 \mid r \in T_s]$   
 where,  $K_s, \beta, \alpha > 0$



Platforms:

$$\max_{q_1, R_1, p_1} V_1 = p_1 r^* + (1 - s^*) R_1 - \gamma q_1^2$$

$$\max_{q_2, R_2, p_2} V_2 = p_2 (1 - r^*) + s^* R_2 - \gamma q_2^2$$



Investors:

$$EU^i(r) = K_I + \mu_s - r\sigma_s^2 + \theta q_i, \text{ where } \theta > 0$$

# Segmenting Equilibrium

$$P_1 > P_2$$

$$q_1 > q_2$$

Platform 1

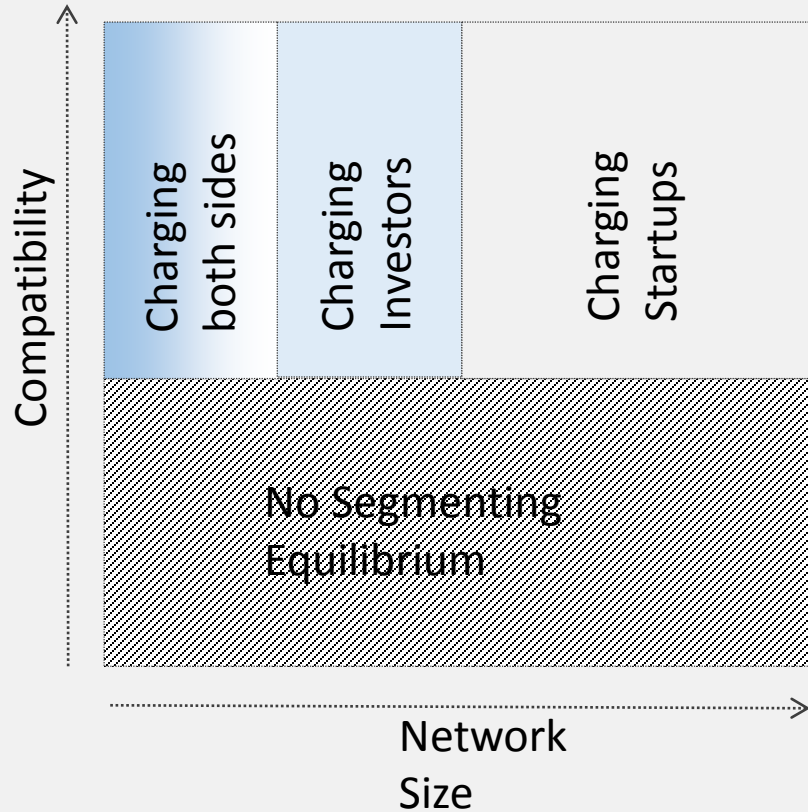


Platform 2



Segmenting Equilibrium exists only when there is significant quality differentiation between the platforms and both startups and investors place a higher value on compatibility.

# Findings



|                     | Segmenting Equilibrium       | Asymmetry | Profits  |
|---------------------|------------------------------|-----------|--|
| Charging both sides | Weak Network Externalities   | High      | Higher profits when network externalities are weak   |
| Charging Investors  | Weak Network Externalities   | Low       | Higher profits when network externalities are strong |
| Charging Startups   | Strong Network Externalities |           |  |

# Conclusions

» Segmentation can improve the value of intermediation service offered by platforms and increase platform profits.

» Platforms can achieve segmentation and strengthen their competitive position by offering differentiated services.

Example: CircleUp focusses exclusively on consumer product companies.

» Choice of pricing strategy can enhance the efficiency of matching by supporting segmentation.

Example: Charging only startups may align well with EquityNet's focus on scale.



Thank You

Feedback and Suggestions are welcome