

Fund What You Trust? Social Capital and Moral Hazard in Crowdfunding

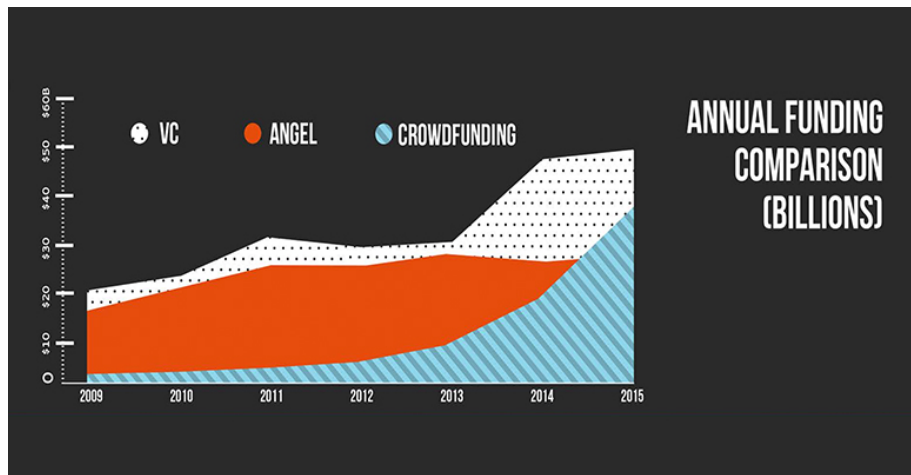
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The University of Hong Kong

Private Markets Research Conference 2018

“Our community is built on trust and communication.”
(Kickstarter rules)

Why do we care about crowdfunding?



Source: Massolution.

Reward-based crowdfunding campaign

- 1 Entrepreneur posts a project pitch on the platform and sets the goal amount

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- 2 Campaign backers pledge funds in return for a promise to receive a product
 - ⇒ Effectively a contract to buy the product before the entrepreneur commits to invest in producing it

Reward-based crowdfunding campaign

- 1 Entrepreneur posts a project pitch on the platform and sets the goal amount
- 2 Campaign backers pledge funds in return for a promise to receive a product
⇒ Effectively a contract to buy the product before the entrepreneur commits to invest in producing it
- 3 If the amount pledged reaches goal amount, entrepreneur receives the funds and has to deliver the reward

Moral hazard in reward-based crowdfunding (Strausz, 2017, AER)

- The entrepreneur:
 - Receives the funds before investing in production
 - Can either invest or embezzle the money
- ⇒ Trust matters

Social capital and trust

- Certain communities tend to generate trust and trustworthy behavior
 - Done via social norms and enforced by the community
- Typically referred to as *social capital*

Main hypothesis

Social capital ↑

⇒ **Moral hazard risk** ↓

(e.g., Guiso, Sapienza, and Zingales, 2004 AER, 2013 JF)

⇒ **Likelihood of success** ↑

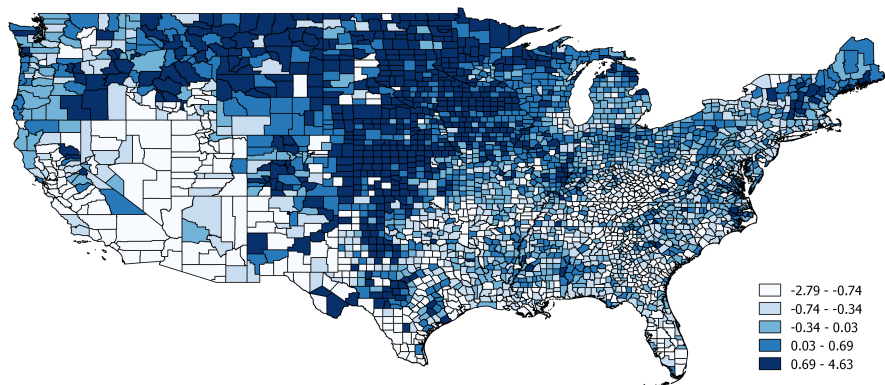
(Strausz, 2017, AER)

- **Hypothesis:** Entrepreneurs who reside in counties with higher levels of social capital have higher campaign success rates

How we measure social capital

- Methodology similar to Rupasingha, Goetz, and Freshwater (2006, JSE)
- Three proxies for social capital:
 - Association density
(10 different types of associations)
 - Registered (charitable) organization density
 - Voter turnout in presidential elections
- Principal component analysis to calculate a social capital index

Social capital index by county in 2014



- The mean is zero and standard deviation one by construction

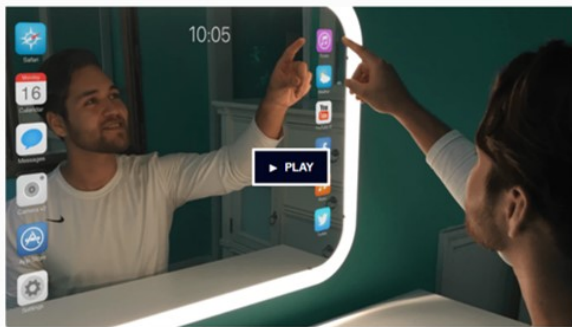
A Kickstarter campaign



By Stephen Bonnain
First created

Eve Smart Mirror: Interactive Smart Mirror with an App Store

The Eve Smart Mirror is a touchscreen mirror that allows you to download over 500+ Applications like Uber, SoundCloud, Twitter, etc.



Hardware Houston, TX

\$20,141

pledged of \$10,000 goal

76

backers

21

days to go

Back this project

Remind me



All or nothing. This project will only be funded if it reaches its goal by Fri, November 17 2017 5:53 PM AWST.

Creator profile

The image shows a mobile application interface with a modal window titled "About the creator" overlaid on top. The modal window contains the following information:

- About the creator** (with a close button 'x')
- Stephen Bonnain** (Name)
- Houston, TX** (Location)
- My name is Stephen Bonnain, I'm the co-founder at Eve Mirrors. We are truly trying to build something that is of a kind but investing in my and my teams' product, we not only guarantee your satisfactory but we will exceed your expectations.** (Bio)
- Websites** (Section header)
- evemirror.com
- [instagram.com](https://www.instagram.com)
- [facebook.com](https://www.facebook.com)
- twitter.com
- ✓ Dalton Metzler** (Reviewer name)
- 🔒 Last login Oct 26 2017** (Last login date)

The background of the app shows a blurred view of a smartphone home screen with various app icons and a photo of a man.

Data & methodology

- Crowdfunding data web-crawled from Kickstarter for April 2009 - August 2017
- Social capital index value based on location

	# campaigns
Kickstarter total	364,332
Our raw data - all campaigns	315,017
<i>Coverage</i>	86%
Of which based in the US and location available	240,807
Of which completed	227,752
Of which all data available for	223,679

Summary statistics

	Mean	Std	p25	p50	p75
Campaign outcomes					
Successful	0.406	0.491	0.000	0.000	1.000
Failed	0.506	0.500	0.000	1.000	1.000
Canceled	0.085	0.279	0.000	0.000	0.000
Suspended	0.003	0.057	0.000	0.000	0.000
Pledged/Goal	0.792	1.467	0.008	0.205	1.091
Amount pledged ('000)	17.445	40.137	2.000	5.000	15.000
County variables					
Social capital (SK)	-0.488	0.661	-1.058	-0.430	-0.024
Personal income ('000)	112.120	143.750	18.189	51.414	147.538
PI per capita ('000)	55.511	26.681	41.025	47.986	55.881
Campaign variables					
Goal amount ('000)	17.445	40.137	2.000	5.000	15.000
Camp. length (days)	34.380	12.860	30.000	30.000	38.000
Staff pick	0.074	0.262	0.000	0.000	0.000
N	223,679				

Summary statistics (cont'd)

	Mean	Std	p25	p50	p75
Entrepreneur variables					
Female	0.186	0.389	0.000	0.000	0.000
Male	0.470	0.499	0.000	0.000	1.000
No gender	0.344	0.475	0.000	0.000	1.000
White	0.550	0.497	0.000	1.000	1.000
Black	0.014	0.119	0.000	0.000	0.000
Asian	0.022	0.146	0.000	0.000	0.000
Hispanic	0.038	0.192	0.000	0.000	0.000
No race	0.375	0.484	0.000	0.000	1.000
N prior campaigns	0.416	2.371	0.000	0.000	0.000
Uncertainty avoidance	53.503	18.577	35.000	51.000	65.000
Timing variables					
EPU	124.595	36.149	93.501	114.654	157.496
Sentiment	-0.183	0.146	-0.305	-0.195	-0.082
N	223,679				

Regression analysis: Campaign outcomes

- Likelihood of success:

$$\text{Successful}_i = \alpha_0 + \alpha_1 \times SK_i + \beta \times X_i + \epsilon_i$$

- Pledged/goal ratio:

$$\ln(1 + \text{Pledged} / \text{Goal})_i = \alpha_0 + \alpha_1 \times SK_i + \beta \times X_i + \epsilon_i$$

Campaign success regressions

	Successful			ln(1+Pledged/Goal)	
	(1) Logit	(2) Logit	(3) OLS	(4) OLS	(5) OLS
Social capital (SK)	0.1620*** (0.0269)	0.1688*** (0.0242)	0.0291*** (0.0044)	0.0218*** (0.0057)	0.0206*** (0.0046)
ln(Personal income)		0.0945*** (0.0092)	0.0162*** (0.0017)		0.0137*** (0.0018)
ln(PI per capita)		0.0171 (0.0547)	0.0035 (0.0095)		0.0245* (0.0134)
ln(Goal amount)		-0.4205*** (0.0146)	-0.0700*** (0.0024)		-0.0888*** (0.0036)
ln(Campaign length)		-0.4465*** (0.0331)	-0.0833*** (0.0070)		-0.0553*** (0.0090)
Staff pick		2.6260*** (0.1112)	0.4396*** (0.0133)		0.4791*** (0.0191)
Gender dummies	No	Yes	Yes	No	Yes
Race dummies	No	Yes	Yes	No	Yes
Year-month FE	No	Yes	Yes	No	Yes
State FE	No	Yes	Yes	No	Yes
Campaign N FE	No	Yes	Yes	No	Yes
Sub-category-Year FE	No	Yes	Yes	No	Yes
N	222,955	215,329	222,818	222,949	222,813
R ²			0.279	0.001	0.346
Pseudo R ²	0.002	0.211			

Significance levels: * 0.1, ** 0.05, *** 0.01. Standard errors in parentheses.

Kickstarter rule change (announced September 20, 2014)

SLASH  GEAR

REVIEWS COLUMNS BUYER'S GUIDE CARS TECH ▼ MORE

Kickstarter changes rules so nobody runs off with your money 1

Nate Swanner - Sep 19, 2014



Kickstarter rule change as a quasi-experiment

- Strengthens the entrepreneurs' obligation to provide backers with the promised rewards
 - Old rule: "Project Creators agree to make a good faith attempt to fulfill each reward by its Estimated Delivery Date"
 - New rule: "When a project is successfully funded, the creator must complete the project and fulfill each reward"
- Adds explicit statement that entrepreneurs failing to deliver may be subject to legal action by backers
- We use this rule change to identify the causal effect of social capital

Kickstarter rule change as a quasi-experiment (cont'd)

- Likelihood of success:

$$\begin{aligned} \text{Successful}_i = & \alpha_0 + \alpha_1 \times \text{Post}_i \times \text{SK}_i + \alpha_2 \times \text{Post}_i \\ & + \alpha_3 \times \text{SK}_i + \beta \times X_i + \epsilon_i \end{aligned}$$

- Pledged/goal ratio:

$$\begin{aligned} \ln(1 + \text{Pledged} / \text{Goal})_i = & \alpha_0 + \alpha_1 \times \text{Post}_i \times \text{SK}_i + \alpha_2 \times \text{Post}_i \\ & + \alpha_3 \times \text{SK}_i + \beta \times X_i + \epsilon_i \end{aligned}$$

- Two-year window around the rule change

Quasi-experiment: Rule change reducing moral h.

Diff-in-Diff regressions on *Successful*

	Actual			Placebo tests (logit)	
	(1) Logit	(2) Logit	(3) OLS	(4) - 1 year	(5) + 1 year
Post x SK	-0.0608** (0.0281)	-0.0584** (0.0283)	-0.0112** (0.0047)	0.0309 (0.0259)	-0.0250 (0.0331)
Post change	0.3432*** (0.1201)	-0.0727 (0.0962)	-0.0119 (0.0149)	-0.0291 (0.0756)	0.3243*** (0.1125)
Social capital (SK)	0.2198*** (0.0297)	0.2140*** (0.0284)	0.0268 (0.0584)	0.1442*** (0.0308)	0.1723*** (0.0414)
Controls	Yes	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes	Yes
Campaign N FE	Yes	Yes	Yes	Yes	Yes
Sub-category FE	Yes	Yes	Yes	Yes	Yes
Year-month FE	No	Yes	Yes	Yes	Yes
County FE	No	No	Yes	No	No
N	83,552	83,552	83,135	78,165	64,652
R^2			0.295		
Pseudo R^2	0.228	0.237		0.193	0.335

Quasi-experiment: Rule change reducing moral h.

Diff-in-Diff regressions on $\ln(1+Pledged/Goal)$

	Actual			Placebo tests	
	(1) OLS	(2) OLS	(3) OLS	(4) - 1 year	(5) + 1 year
Post x SK	-0.0144*** (0.0046)	-0.0133*** (0.0048)	-0.0127*** (0.0047)	0.0027 (0.0043)	-0.0052 (0.0051)
Post change	0.0501*** (0.0189)	-0.0002 (0.0130)	0.0002 (0.0133)	0.0010 (0.0164)	0.0413** (0.0179)
Social capital (SK)	0.0277*** (0.0048)	0.0258*** (0.0047)	0.0412 (0.0596)	0.0226*** (0.0061)	0.0174*** (0.0054)
Controls	Yes	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes	Yes
Campaign N FE	Yes	Yes	Yes	Yes	Yes
Sub-category FE	Yes	Yes	Yes	Yes	Yes
Year-month FE	No	Yes	Yes	Yes	Yes
County FE	No	No	Yes	No	No
N	83,609	83,609	83,133	78,192	64,751
R ²	0.322	0.330	0.350	0.265	0.440

Quasi-experiment: Rule change reducing moral h.

By category

- We classify *Hardware* and *Product Design* as *Risky categories*
- Likelihood of success:

$$\begin{aligned}
 \text{Successful}_i = & \alpha_0 + \alpha_1 \times \text{Post}_i \times \text{Risky category}_i \times \text{SK}_i \\
 & + \alpha_2 \times \text{Post}_i \times \text{SK}_i + \alpha_3 \times \text{Post}_i \times \text{Risky category}_i \\
 & + \alpha_4 \times \text{Post}_i + \alpha_5 \times \text{Risky category}_i \times \text{SK}_i \\
 & + \alpha_6 \times \text{SK}_i + \beta \times X_i + \epsilon_i
 \end{aligned}$$

- Pledged/goal ratio:

$$\begin{aligned}
 \ln(1 + \text{Pledged} / \text{Goal})_i = & \alpha_0 + \alpha_1 \times \text{Post}_i \times \text{Risky category}_i \times \text{SK}_i \\
 & + \alpha_2 \times \text{Post}_i \times \text{SK}_i \\
 & + \alpha_3 \times \text{Post}_i \times \text{Risky category}_i \\
 & + \alpha_4 \times \text{Post}_i + \alpha_5 \times \text{Risky category}_i \times \text{SK}_i \\
 & + \alpha_6 \times \text{SK}_i + \beta \times X_i + \epsilon_i
 \end{aligned}$$

Quasi-experiment: Rule change reducing moral h.

By category

	Successful			ln(1+Pledged/Goal)		
	(1) Logit	(2) Logit	(3) OLS	(4) OLS	(5) OLS	(6) OLS
Post x Risky cat. x SK	-0.0969*** (0.0290)	-0.0855*** (0.0305)	-0.0092 (0.0066)	-0.0465*** (0.0054)	-0.0460*** (0.0046)	-0.0427*** (0.0074)
Post x SK	-0.0497* (0.0277)	-0.0473* (0.0278)	-0.0103** (0.0049)	-0.0110*** (0.0039)	-0.0097** (0.0041)	-0.0097** (0.0042)
Post x Risky cat.	0.9835* (0.5686)	1.1532* (0.6168)	0.2230** (0.1053)	0.1944 (0.1218)	0.2208* (0.1247)	0.2226* (0.1180)
Post change	0.2785*** (0.1028)	-0.1765 (0.1348)	-0.0287 (0.0200)	0.0383*** (0.0146)	-0.0165 (0.0195)	-0.0166 (0.0198)
Risky cat. x SK	-0.0606 (0.0398)	-0.0669 (0.0431)	-0.0196*** (0.0053)	0.0133 (0.0142)	0.0133 (0.0150)	0.0063 (0.0125)
Social capital (SK)	0.2198*** (0.0303)	0.2143*** (0.0289)	0.0217 (0.0569)	0.0263*** (0.0051)	0.0243*** (0.0050)	0.0340 (0.0581)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Campaign N FE	Yes	Yes	Yes	Yes	Yes	Yes
Sub-category FE	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	No	Yes	Yes	No	Yes	Yes
County FE	No	No	Yes	No	No	Yes
N	83,552	83,552	83,135	83,609	83,609	83,133
R ²			0.298	0.325	0.333	0.353
Pseudo R ²	0.230	0.240				

Additional results

- Likelihood of campaign suspension
- Cross-sectional variation of the social capital effect:
 - Entrepreneur characteristics (individual vs. team and prior track record)
 - Campaign characteristics (small vs. large goal amount and ordinary vs. staff pick campaigns)
 - Regional characteristics (poor vs. rich counties and large vs. small city)
 - Campaign timing (high vs. low EPU and sentiment)
- Campaign goal amounts

Suspension rate vs. social capital

	(1) Logit	(2) Logit	(3) Logit	(4) Logit	(5) Logit
Social capital (SK)	-0.1227** (0.0566)	-0.2595*** (0.0899)	-0.2687*** (0.0901)	-0.4310*** (0.1537)	-0.0173 (0.0806)
ln(Personal income)		-0.0326 (0.0393)	-0.0340 (0.0393)	-0.0458 (0.0461)	0.0752** (0.0379)
ln(PI per capita)		0.4509** (0.1901)	0.4617** (0.1903)	1.0622*** (0.2987)	-0.0856 (0.1885)
ln(Goal amount)		-0.1178** (0.0470)	-0.1285*** (0.0493)	-0.1328*** (0.0481)	-0.1461*** (0.0439)
ln(Campaign length)		0.2712** (0.1223)	0.2360* (0.1235)	0.2504** (0.1241)	0.4108*** (0.1310)
Gender dummies	No	Yes	Yes	Yes	Yes
Race dummies	No	Yes	Yes	Yes	Yes
Campaign N FE	No	No	Yes	Yes	Yes
State FE	No	No	No	Yes	No
Year FE	No	No	No	No	Yes
N	223,679	223,678	220,964	218,906	220,118
Pseudo R^2	0.000	0.009	0.010	0.017	0.044

Individual entrepreneur vs. a group or a company

	Successful		ln(1+Pledged/Goal)	
	(1) Logit	(2) OLS	(3) OLS	(4) OLS
Individual × SK	0.0557*** (0.0200)	0.0071** (0.0036)	0.0137*** (0.0044)	0.0116*** (0.0044)
Social capital (SK)	0.1333*** (0.0298)	0.0021 (0.0113)	0.0116* (0.0063)	0.0044 (0.0115)
Individual	-0.2901*** (0.0265)	-0.0496*** (0.0048)	-0.0546*** (0.0049)	-0.0536*** (0.0050)
County controls	Yes	Yes	Yes	Yes
Campaign controls	Yes	Yes	Yes	Yes
Race controls	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes
State FE	Yes	No	Yes	No
Campaign N FE	Yes	Yes	Yes	Yes
Sub-category-Year FE	Yes	Yes	Yes	Yes
County FE	No	Yes	No	Yes
N	215,329	222,412	222,813	222,407
R ²		0.292	0.345	0.359
Pseudo R ²	0.208			

Prior track record

	Successful		ln(1+Pledged/Goal)	
	(1) Logit	(2) OLS	(3) OLS	(4) OLS
Social capital (SK)	0.1847*** (0.0253)	0.0098 (0.0110)	0.0252*** (0.0047)	0.0166 (0.0107)
2nd campaign x SK	-0.0512* (0.0265)	-0.0073 (0.0046)	-0.0142*** (0.0051)	-0.0142*** (0.0052)
3rd campaign x SK	-0.1757*** (0.0505)	-0.0309*** (0.0088)	-0.0436*** (0.0091)	-0.0448*** (0.0091)
4th or higher x SK	-0.2058*** (0.0779)	-0.0413*** (0.0114)	-0.0688*** (0.0193)	-0.0736*** (0.0197)
2nd campaign	0.2569*** (0.0433)	0.0503*** (0.0078)	0.0669*** (0.0107)	0.0657*** (0.0104)
3rd campaign	0.2720*** (0.0648)	0.0526*** (0.0110)	0.1066*** (0.0154)	0.1030*** (0.0148)
4th or higher	0.6747*** (0.1155)	0.1101*** (0.0167)	0.2536*** (0.0324)	0.2429*** (0.0314)
County controls	Yes	Yes	Yes	Yes
Campaign controls	Yes	Yes	Yes	Yes
Gender and race	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes
State FE	Yes	No	Yes	No
Sub-category-Year FE	Yes	Yes	Yes	Yes
County FE	No	Yes	No	Yes
N	215,395	222,448	222,849	222,443
R ²		0.294	0.345	0.359
Pseudo R ²	0.210			

Goal amount regression

	(1) OLS	(2) OLS	(3) OLS
Social capital (SK)	-0.0942*** (0.0142)	-0.0212** (0.0101)	-0.0224** (0.0101)
ln(Personal income)		0.0478*** (0.0035)	0.0478*** (0.0035)
ln(PI per capita)		0.2050*** (0.0188)	0.2056*** (0.0187)
Gender dummies	No	Yes	Yes
Race dummies	No	Yes	Yes
Year-month FE	No	Yes	Yes
State FE	No	Yes	Yes
Campaign N FE	No	Yes	Yes
Sub-category FE	No	Yes	No
Sub-category-Year FE	No	No	Yes
N	222,954	222,918	222,818
R ²	0.002	0.193	0.205

Conclusion

- We study the impact of moral hazard on crowdfunding campaigns, utilizing the tendency of social capital to mitigate moral hazard
- We find a strong positive relationship between social capital and crowdfunding success rates
- A quasi-experiment utilizing a Kickstarter rule change supports a causal interpretation
- The effect of social capital is strongest in the campaigns with highest moral hazard risk

Appendix

Number of campaigns by year

	Outcome			Total
	Successful	Unsuccessful	Suspended	
2009	386	463		849
2010	3,702	4,706	15	8,423
2011	10,859	12,938	42	23,839
2012	16,019	21,130	48	37,197
2013	16,361	20,058	45	36,464
2014	15,945	30,059	151	46,155
2015	13,309	23,269	287	36,865
2016	9,652	14,146	95	23,893
2017	4,587	5,366	41	9,994
Total	90,820	132,135	724	223,679

Social capital index – components

- **Association density (available from 1986):** We use the annual County Business Patterns data collected by the Census Bureau to calculate the number of associations in each county, divided by population, including ten different association types:
 - Civic and social organizations
 - Bowling centers
 - Golf courses and country clubs
 - Fitness and recreational sports centers
 - Sports teams and clubs
 - Religious organizations
 - Political organizations
 - Labor unions and similar labor organizations
 - Business associations
 - Professional organizations

Social capital index – components (cont'd)

- **Registered organization density (available from 1995):**
Total number of registered tax-exempt non-profit organizations based in the county, divided by population. We obtain the charitable organization data from National Center for Charitable Statistics (NCCS).
- **Voter turnout:** Total number of votes in the latest presidential election, divided by county voting age population.

County wealth level

	Successful		ln(1+Pledged/Goal)	
	(1) Logit	(2) OLS	(3) OLS	(4) OLS
High PI/Capita × SK	-0.0102 (0.0250)	-0.0230*** (0.0087)	-0.0035 (0.0051)	-0.0251*** (0.0083)
Social capital (SK)	0.1746*** (0.0246)	0.0152 (0.0114)	0.0220*** (0.0049)	0.0212** (0.0107)
County controls	Yes	Yes	Yes	Yes
Campaign controls	Yes	Yes	Yes	Yes
Gender and race	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes
State FE	Yes	No	Yes	No
Campaign N FE	Yes	Yes	Yes	Yes
Sub-category-Year FE	Yes	Yes	Yes	Yes
County FE	No	Yes	No	Yes
N	215,329	222,412	222,813	222,407
R ²		0.294	0.346	0.360
Pseudo R ²	0.211			

City size

	Successful		ln(1+Pledged/Goal)	
	(1) Logit	(2) OLS	(3) OLS	(4) OLS
Large city x SK	0.1417*** (0.0253)	0.0090 (0.0054)	0.0192*** (0.0043)	0.0096* (0.0054)
Large city	0.1826*** (0.0204)	0.0314*** (0.0057)	0.0286*** (0.0039)	0.0322*** (0.0049)
Social capital (SK)	0.0737*** (0.0266)	0.0014 (0.0110)	0.0067 (0.0051)	0.0064 (0.0115)
County controls	Yes	Yes	Yes	Yes
Campaign controls	Yes	Yes	Yes	Yes
Gender and race	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes
State FE	Yes	No	Yes	No
Campaign N FE	Yes	Yes	Yes	Yes
Sub-category-Year FE	Yes	Yes	Yes	Yes
County FE	No	Yes	No	Yes
N	215,329	222,412	222,813	222,407
R^2		0.294	0.346	0.360
Pseudo R^2	0.211			

Campaign size

	Successful		ln(1+Pledged/Goal)	
	(1) Logit	(2) OLS	(3) OLS	(4) OLS
Large x SK	-0.0337* (0.0189)	-0.0109*** (0.0035)	-0.0056* (0.0030)	-0.0045 (0.0032)
Social capital (SK)	0.1820*** (0.0238)	0.0116 (0.0111)	0.0232*** (0.0049)	0.0141 (0.0109)
County controls	Yes	Yes	Yes	Yes
Campaign controls	Yes	Yes	Yes	Yes
Gender and race	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes
State FE	Yes	No	Yes	No
Campaign N FE	Yes	Yes	Yes	Yes
Sub-category-Year FE	Yes	Yes	Yes	Yes
County FE	No	Yes	No	Yes
N	215,329	222,412	222,813	222,407
R ²		0.294	0.346	0.360
Pseudo R ²	0.211			

Staff pick

	Successful		ln(1+Pledged/Goal)	
	(1) Logit	(2) OLS	(3) OLS	(4) OLS
Staff pick x SK	-0.1024*** (0.0359)	-0.0026 (0.0056)	-0.0283*** (0.0064)	-0.0151** (0.0068)
Social capital (SK)	0.1737*** (0.0241)	0.0069 (0.0109)	0.0226*** (0.0046)	0.0131 (0.0108)
County controls	Yes	Yes	Yes	Yes
Campaign controls	Yes	Yes	Yes	Yes
Gender and race	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes
State FE	Yes	No	Yes	No
Campaign N FE	Yes	Yes	Yes	Yes
Sub-category-Year FE	Yes	Yes	Yes	Yes
County FE	No	Yes	No	Yes
N	215,329	222,412	222,813	222,407
R ²		0.294	0.346	0.360
Pseudo R ²	0.211			

Economic policy uncertainty

	Successful		ln(1+Pledged/Goal)	
	(1) Logit	(2) OLS	(3) OLS	(4) OLS
High EPU × SK	0.0083 (0.0180)	0.0088*** (0.0032)	0.0054* (0.0030)	0.0091*** (0.0030)
Social capital (SK)	0.1652*** (0.0241)	0.0024 (0.0110)	0.0184*** (0.0045)	0.0076 (0.0106)
County controls	Yes	Yes	Yes	Yes
Campaign controls	Yes	Yes	Yes	Yes
Gender and race	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes
State FE	Yes	No	Yes	No
Campaign N FE	Yes	Yes	Yes	Yes
Sub-category-Year FE	Yes	Yes	Yes	Yes
County FE	No	Yes	No	Yes
N	215,329	222,412	222,813	222,407
R ²		0.294	0.346	0.360
Pseudo R ²	0.211			

Sentiment

	Successful		ln(1+Pledged/Goal)	
	(1) Logit	(2) OLS	(3) OLS	(4) OLS
High sent. × SK	-0.0110 (0.0175)	-0.0086** (0.0035)	-0.0024 (0.0027)	-0.0056** (0.0028)
Social capital (SK)	0.1938*** (0.0302)	0.0195 (0.0141)	0.0259*** (0.0056)	0.0237** (0.0111)
County controls	Yes	Yes	Yes	Yes
Campaign controls	Yes	Yes	Yes	Yes
Gender and race	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes
State FE	Yes	No	Yes	No
Campaign N FE	Yes	Yes	Yes	Yes
Sub-category-Year FE	Yes	Yes	Yes	Yes
County FE	No	Yes	No	Yes
N	178,842	182,062	182,490	182,059
R ²		0.272	0.303	0.320
Pseudo R ²	0.199			

Alternative explanations

- Social capital may also be related to:
 - Risk aversion
 - Does not seem likely, SK is a sort of an economic safety net, and there is evidence showing that individuals in high-social capital-areas make more risky investments
 - Even when controlling for entrepreneur's culture-based uncertainty aversion (Hofstede, 2001), SK remains significant
 - Project quality
 - Mitigated by our experience results
 - Social network
 - Xu (2017) shows that only 19% of backers are from the same city

Controlling for cultural uncertainty aversion

	Successful			ln(1+Pledged/Goal)	
	(1) Logit	(2) Logit	(3) OLS	(4) OLS	(5) OLS
Social capital (SK)	0.1773*** (0.0275)	0.2271*** (0.0322)	0.0379*** (0.0054)	0.0275*** (0.0063)	0.0294*** (0.0053)
Uncertainty avoidance	0.0008 (0.0005)	0.0029*** (0.0005)	0.0005*** (0.0001)	0.0002 (0.0002)	0.0004*** (0.0001)
ln(Personal income)		0.1122*** (0.0106)	0.0188*** (0.0019)		0.0170*** (0.0019)
ln(PI per capita)		-0.0623 (0.0656)	-0.0093 (0.0109)		0.0090 (0.0134)
ln(Goal amount)		-0.4544*** (0.0159)	-0.0736*** (0.0026)		-0.0915*** (0.0037)
ln(Campaign length)		-0.4642*** (0.0348)	-0.0853*** (0.0069)		-0.0580*** (0.0071)
Staff pick		2.6762*** (0.1162)	0.4408*** (0.0150)		0.4742*** (0.0182)
Gender dummies	No	Yes	Yes	No	Yes
Race dummies	No	Yes	Yes	No	Yes
Year-month FE	No	Yes	Yes	No	Yes
State FE	No	Yes	Yes	No	Yes
Campaign N FE	No	Yes	Yes	No	Yes
Sub-category-Year FE	No	Yes	Yes	No	Yes
N	111,652	108,030	111,515	111,652	111,515
R ²			0.282	0.001	0.350
Pseudo R ²	0.002	0.218			

Benefits of reward-based crowdfunding

- Entrepreneur can learn about the product demand before investing in production
- Removes potential barriers to financing due to biased investment decisions
- Complementary source of financing in addition to traditional forms of venture capital and angel investors

Strausz Kickstarter campaign

KICKSTARTER

An Economic Theory of Crowdfunding

A Theory of Crowdfunding

- a mechanism design approach with demand uncertainty and moral hazard

Roland Strausz*

November 2, 2015

Help a theoretical economist to raise money for a submission fee and to gain 1st-hand experience in crowdfunding for his paper.

Created by
Roland Strausz

36 backers pledged €170 to help bring this project to life.

[Campaign](#) [FAQ](#) [Updates ¹³](#) [Comments ⁸](#) [Community](#)

About this project

📍 Berlin, Germany 🎓 Academic

€170
pledged of €110 goal

36
backers

Yes, I am currently writing an academic paper on the subject of crowdfunding with the intention to publish it in an academic, peer-reviewed journal. Submissions to academic journals require a submission fee of about \$100, which I want to fund through crowdfunding. Since fees are about 10%, I have set the goal at €110. Any excess in contributions will be used for financing

Support this project

Pledge €1 or more

If you think it is cool to crowdfund a paper on crowdfunding and want to fund me for the fun of it then this pledge of €1 is just for you.

ESTIMATED DELIVERY
Jul 2016
10 backers

Relevant literature on social capital

- Social capital and individual behavior:
 - Less willing to strategically default on mortgages (Guiso et al., 2013, JF)
 - Facilitates the spread of trust-intensive financial products (Guiso et al., 2004, AER)
- Social capital and firm behavior:
 - Lower bank loan spreads, looser other loan terms, and lower at-issue bond spreads (Hasan, Hoi, Wu, and Zhang, 2016, JFQA)
 - Less tax avoidance (Hasan, Hoi, Wu, and Zhang, 2017, JAR)
 - Lower audit fees (Jha and Chen, 2015, AR)

Examples of legal action on Kickstarter fraud cases

- Mar-2011: “Hanfree” standing iPad mount campaign - a lawsuit by a backer forced the company into bankruptcy
- May-2014: “Asylum Playing Cards” project - first state legal action against entrepreneur on Kickstarter (Washington)
- Nov-2015: “The Doom That Came To Atlantic City” game - first SEC legal action against entrepreneur on Kickstarter
- Mar-2017: “ONAGOFly” (on Indiegogo) hit by a class action suit filed by campaign backers
- A number of such legal cases afterwards