

FOUNDER EFFECTS ON THE R+D SPENDING-INNOVATION OUTPUT RELATIONSHIP

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R&D SPENDING-INNOVATION OUTPUT RELATIONSHIP

- ▶ Innovation is important for firm performance
- ▶ Many firms invest heavily in R&D as means to increase their innovation
- ▶ Yet, there is high variance in the R&D spending-innovation output relationship
- ▶ To a large extent it is corporate culture and routines that shape the effectiveness of R&D expenses
- ▶ In new ventures it is founders who shape such culture and routines

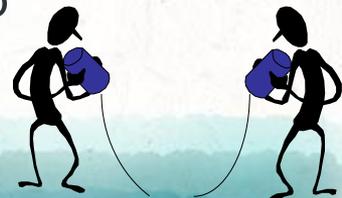


**HOW DO FOUNDERS' CHARACTERISTICS
AFFECT THE R&D SPENDING-INNOVATION
OUTPUT RELATIONSHIP?**



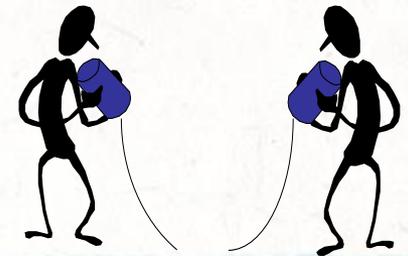
POSSIBLE EFFECTS OF FOUNDER CHARACTERISTICS

- ▶ Industry specific experience- likely to positively moderate the relationship – knowledge of: the industry, competitive landscape, network relations
- ▶ Previous startup experience- likely to positively moderate the relationship – reflects startup management experience and risk taking propensity
- ▶ Founding team diversity - initially likely to positively moderate the relationship , but then negatively moderate it— too little diversity (more of the same) or too much diversity (coordination and frictions) are inferior to moderate diversity



POSSIBLE EFFECTS OF FOUNDER CHARACTERISTICS

- ▶ Post hoc analysis-
 - Founder immigrant status
 - Founder gender
 - Founder marital status
 - Founder age
 - Founder level of education



DATA

- Kauffman Firm Survey – cohort of 2004 startups, tracked till 2011 (about 2000 high + medium tech startups)
- DVs: number of patents, new product and process releases
- Controlling for: firm size, number of employees, investments, financial measures, industry specific effects



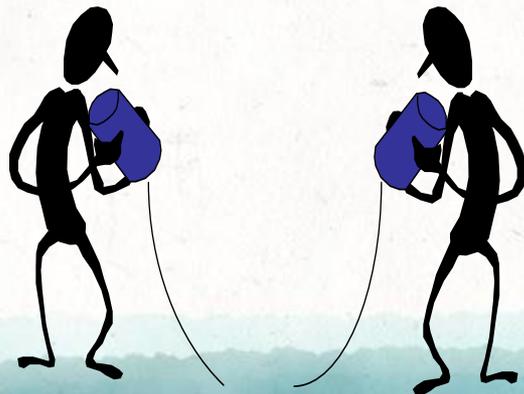
EMPIRICS

- **Moderators** for the R&D expenses-innovation output relationship
- Controlling for possible *selection bias* due to founder departure (PSM/CEM models)
- *Endogeneity* - possible IV for R&D expenditure – R&D tax breaks
- *Diff-in-Diff analysis* – Do firms that are more effective in their R&D spending differ in the effect of R&D on innovation after the decrease in R&D spending following the 2008 crisis?



CONTRIBUTIONS

- ▶ A more fine grained identification of the mechanisms by which founders affect new ventures
- ▶ Better understanding of what shapes new venture innovation (for both academics and practitioners)



THANK
YOU!

