Entrepreneurship and social networks

DIMETIC Session
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Prof. Olav Sorenson
University of Toronto & London Business School
Four studies

- Danish residents (1995-2001)
- U.S. Footwear manufacturers (1940-1989)
Exp. 1: Footwear manufacturing 1940

Footwear manufacturing 1989

Source: Sorenson & Audia, American Journal of Sociology, 2000
Typical explanations

- Transportation costs
- Agglomeration externalities
  - Pooled labor
  - Shared suppliers
  - Information spillovers
- Implication: Efficiency of spatial distribution
What do social networks do for entrepreneurs?

- Provide access to information
  - Opportunity identification aided by access to private information which travels through social networks
  - Firm building aided by access to accumulated tacit knowledge which travels through social networks
- Provide access to critical resources
  - Resource mobilization facilitated by information transfer, the ability to monitor and sanction, and trust – all of which depend on social networks
- Offer social support
Social networks facilitate information access

- Burt & Raider (2002): Structurally diverse networks positively related to entrepreneurship
- Rezulli, Aldrich & Moody (Social Forces, 2003): Those at intersecting positions in different networks found firms at higher rates
- Elfring & Hulsink (Small Business Economics, 2003): Weak ties facilitate opportunity identification
Social networks facilitate resource access


- Human capital

How do networks relate to geography?

• Social ties concentrate in space
  • Both in physical space and social space (e.g., industry)
  • Space shapes opportunities for contact, as well as the costs of maintaining a tie

• …leading industries to cluster

• Entrepreneurs most aware of opportunities and best able to formulate and execute plans for new businesses where they live in the industries in which they work
Evidence from the individual level
• IDA + supplemental information on entrepreneurs

• Spatial unit: 275 kommunes

8,400 observations

Inexperienced: 34%
Experienced: 66%

Inexperienced: 47%
Experienced: 53%

Industry
Kommune

8,400 observations
Location choice estimates

- Conditional logit (McFadden choice model)
  - One location actually chosen
  - Compared to characteristics of 274 locations not chosen
  - Control for founder characteristics
Entrepreneurs do not often move

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Firm performance estimates

• Discrete time probability of failure

• Include controls for firm heterogeneity
  • Age - number of years since founding (splined)
  • Limited liability - corporate form
  • Ln (size) - Ln of number of employees

• Includes controls for entrepreneur experience in industry
  • X home - potential test for industry-specific social capital
Firms founded by entrepreneurs with experience in the region survive longer

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Evidence from the industry level
Footwear manufacturing 1989

Weighted density variables

\[ \text{LocalDensity}_{it} = \sum_j \frac{x_{jt}}{1 + d_{ij}} \]

- \( i \) is focal location
- \( j \) are all other location
- \( x \) is a vector of location characteristics
  - Number of firms
  - Exp.: size
- \( d \) is a vector of distances between \( i \) and \( j \)
  - reduces to (usual) density when \( d = 0 \) for all \( ij \) pairs
Weighted density variables – Construction example

For location A,
local density = 1.083 =
1 + 0 \times (0/11) + .083 \times (1/12)

For location B,
local density = .341 =
0 + .091 \times (1/11) + .25 \times (1/4)

For location C,
local density = 1.083 =
1 + 0 \times (0/4) + .083 \times (1/12)
Entry, exit and concentration

Time to equilibrium

Exit with random entry

1956  1963

Exit with no entry

1956  1964

Exit with structured entry

1956  2047

22
Exp. 2: Computer workstations in 1984

Source: Sorenson, 2004
Computer workstations in 1996

Source: Sorenson, 2004
Local density and entry in workstations

Source: Sorenson, 2004
Exp. 3: Biotechnology

Source: Stuart & Sorenson, Research Policy, 2003
Relative resource importance

Fig. 1.—The small world of markets and organizations