Does Social Capital Explain Small Business Resilience? A Panel Data Analysis Post-Katrina

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Motivation

Social capital theory explains how societal networks are as important as physical resources on post-disaster resilience (Aldrich, 2012). The importance of resilience is that it allows families, small businesses, and communities to respond faster and better to exogenous shocks (Marshall and Schrank, 2014). How small businesses, employers of half of private workforces, cope after a disaster and what it takes for them to survive is very important to America’s economy.

Objectives

The overall objective is to investigate how social capital influences resilience after hurricane Katrina. More specifically:

1. Does social capital explain small business resilience post-Katrina?
2. What is the most effective type of social capital for building small business resilience?

Methodology

Social capital is an intangible asset that results from the cooperation between individuals, families, businesses, and institutions. Aldrich (2012) framework is used to investigate how the support received from friends and family (bonding), community (bridging), and organizations and institutions (linking) to overcome disaster and build resilience.

The Small Business Disaster Recovery Framework is used to assess resilience. A resilient business is the one that reports increasing gross revenues when comparing pre- and post-Katrina levels. The data comes from two waves of interviews with 450 Mississippi small business owners hit by Katrina. Primary panel data allow us to use fine and multiple measurements of social capital to accurately assess how and why small business gain resilience.

We used a panel regression with pre-Katrina, and post-Katrina gross revenue values as the dependent variable (2004, 2011, and 2013). The key explanatory variable is pre- and post-Katrina bonding, bridging, and linking social capital reported by business owners. The model controls for family, business, owner’s disaster and community factors. Pooled OLS and between, fixed, and random effects estimators were calculated.

Results

- Gross revenues decreased after Katrina but they increased with time, especially for businesses with social capital
- Small business in coastal counties of Mississippi (Harrison, Jackson, and Hancock) had 12% lower pre- and post-Katrina gross revenues

Does social capital explain small business resilience post-Katrina?

- Small business that received all kinds of social capital post-Katrina reported significantly higher gross revenues
- Hausman test supports the use of random effects (P>0.12) and a likelihood-ratio test rejects heteroskedasticity

What type of social capital is the most effective for building small business resilience?

- Small businesses that received only bonding social capital (support from family and friends) post-Katrina reported on average a $247,962 increase in gross revenues
- Small businesses that received only bridging social capital (support from community) reported on average a $220,089 decrease in gross revenues
- Gross revenues post-Katrina increased for small business that had emergency plan pre-Katrina and property insurance
- Gross revenues post-Katrina decreased for small business that were not incorporated, female ownership, and the longer the number of days to reopen after Katrina
- Time invariant effects are significant determinants of small business gross revenues post-Katrina

Conclusions

Small businesses connected to family, community, and institutions and forming part of tighter local networks can overcome disaster and build resilience. Thus, self-reliance only cannot assure post-disaster recovery. Support from family and friends is key to assure small business success, as community’s support may be limited to the scope of the disaster. Though immediate and short-term relief from financial and physical resources are key to small business recovery, evidence suggests that social capital can have positive long-term impacts on building resilience.

Further research will incorporate 1) a third wave of surveys, 2) a double hurdle panel regression to allow for separate stochastic processes for businesses that closed after Katrina, and 3) regressions with alternative proxies for resilience.