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Small Business Research Summary

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Utilizing the Kauffman Firm Survey to Predict Growth in Venture Size and Scope among Small Firm Startups: 2004 Startups Tracked through 2008

by Timothy Bates, Alicia Robb, and Simon Parker; Beacon Economics LLC, San Rafael, Calif., 94901. 70 pages. Under contract number SBAHQ-10-M-0210.

Is it possible to identify startups and very young ventures that will successfully grow and flourish? This study identifies some of the factors that predict growth among startups and very young ventures and provides insights into small firm growth dynamics. The factors considered include the founders' education and experience, the size of the ownership team, and their access to capital. The researchers test their hypotheses using the Kauffman Firm Survey (KFS), which follows a set of nascent and new firms over several years, from 2004 through 2008.

Background

New businesses are major contributors to the productivity and growth of the U.S. economy. Understanding the dynamics of the business creation process is important in the implementation of policy approaches to facilitate job creation and economic growth. In the past two decades about 40 percent of the private sector's net new jobs have been created from the churn of startups minus closures.[1] The factors affecting the decision to embark on entrepreneurship are highly complex. Past research has indicated that socio-demographic factors including age, gender, race, ethnicity, marital status, and education have a major impact on who becomes an entrepreneur and participates in the business creation process. Individuals as well as teams develop and grow new firms with diverse approaches. Existing research indicates there is no single way to successfully start and expand a new venture. There is some evidence that the creativity and dedication of entrepreneurs in the early phases of venture development, rather than their personal backgrounds, are the key to successfully launching a viable new business venture.

Overall Findings

The researchers find two key features of small business startups likely to endure, operate profitably, and expand: 1) involvement of capable entrepreneurs possessing appropriate human capital for operating their business; and 2) assembly of, and access to, sufficient financial capital to achieve efficient scale to exploit opportunities.

Several other broad relationships are also observed:

- Firms with groups of three or more owners often experience higher growth, other factors equal, than businesses with fewer owners. Since new ventures demand a great amount of uncompensated time from their founders, being able to share the investment of time among a number of people may make it more manageable.
- At the point of venture startup, owner education and relevant work experience are poor predictors of subsequent firm growth. However, for firms in operation for four years, owners' level of educational attainment was associated positively with enhanced venture performance. This apparent paradox is explained by the opportunity costs facing highly educated and experienced individuals when a firm is brand new—whether to gamble on a startup that may not see a return on investment for some years or accept the security of a well-paid job. Many opt for a steady immediate income rather than accept business risk and an uncertain future payout.

1. "Frequently Asked Questions," SBA Office of Advocacy, September 2012, **www.sba.gov/advocacy/7495**.

- As expected, home-based businesses experience less actual firm growth relative to businesses operated outside of the home.
- Beyond year three, ownership of intellectual property predicted higher growth for high-tech and financial-capital-intensive firms, other factors being equal.
- Confirming earlier research, higher credit scores, a measure of credit market access, successfully explained higher venture growth, and vice versa for low scores.
- Many firms caught by heavy bank indebtedness burdens were harmed by the severe credit market contraction during the four-year study period. As a consequence, they experienced lower growth than their counterparts less burdened by outside debt.
- Female-owned firms had lower growth rates than otherwise identical male-owned small businesses.

Discussion of Findings

The study period, 2004–2008, coincided with a downturn in the U.S. economy and a tightening of available credit. Prior analysis of new venture startups suggests that U.S. firm creation has been stable over the last few decades. The venture growth analyzed in this study, importantly, overlapped with a time period of both a downturn in the U.S. economy and a tightening of credit availability. Small business growth dynamics may differ in more normal times when credit market ease and strong growth prevail in the entire economy.

The factors identified by the researchers as predicting growth are rather unsurprising. In general, scholars analyzing databases of startup ventures with the objective of identifying likely winners have had, to date, rather less success than venture capital funds. Successful venture capitalists, of course, typically earn their livelihood by selecting young ventures having considerable growth potential and investing equity capital to acquire ownership stakes in these promising ventures.

Policy Implications

The findings provide support for policies that:

- Increase the sources of financial capital to startup firms (through banks and nonbank sources);
- Increase technical assistance to help small business startups raise their credit scores;
- Provide increased assistance to women-owned and home-based businesses; and
- Provide additional business assistance to startups during economic downturns—e.g., from SBA and other federal and local sources.

Scope and Methodology

The researchers chose to measure firm growth in terms of employment (instead of revenues or other measures). They use the Kauffman Firm Survey, a database of 4,022 firms considered to be startups in 2004. The survey is unique in attempting to capture businesses in the gestational stage, and many in the sample do not end up making it to the startup phase within the time frame studied. They distinguish nascent businesses (i.e., not yet in operation) from actual startups by excluding firms with very low or zero revenues from the analysis files until their sales pass a threshold value.

The researchers identify three industry-specific and factor-intensive subsets of businesses: 1) high-tech firms, 2) financial-capital-intensive young firms, and 3) human-capital-intensive small firms. The results were corrected using weights, since the KFS over-represents high-tech ventures. Financial-capital-intensive firms were identified and defined using the Annual Capital Expenditure Survey (ACES), and human-capital-intensive firms were defined using the 2000 Census of Population Public Use Microdata Sample.

To account for the recession's varying effects throughout the country, the authors added two state-specific annual macroeconomic control variables—state unemployment rates and the annual change in the state unemployment rate.

The study reports statistics of owner traits, firm traits, and firm outcomes that show how various groupings of growing firms and their owners differ from firms with no or negative growth in revenues through yearend 2008. It divides firms into three overlapping groups reporting positive growth in annual sales revenues from their base year through 2008 (increasing three-fold, four-fold, and five-fold) as well as those with no-growth or negative-growth.

This report was peer-reviewed consistent with Advocacy's data quality guidelines. More information on this process can be obtained by contacting the director of economic research at **advocacy@sba.gov** or (202) 205-6533.

Additional Information

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