STARTUPS IN LOS ANGELES

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SUMMARY: Research has shown that the formation, attributes, and success of entrepreneurship are region-specific. Thus, this study examines the characteristics of startups in Los Angeles. In particular, we look at startups' general business area, operating status, funding history, and key corporate actions. We also review these characteristics within the national and state context. Recommendations to entrepreneurs and investors are made based on our findings.

Introduction

The importance of entrepreneurship has been studied extensively. For instance, Holtz-Eakin and Kao (2003) find a positive impact of entrepreneurship on labor productivity growth in the US. Using data from 145 European regions, Boente et al. (2008) also find a positive relationship between total factor productivity and entrepreneurship capital. Kane (2010) argues that job creation in the US comes mainly from startups. Bunten et al. (2015) also show a positive effect of entrepreneurship on future employment growth at the county level in the US. Audretsch and Keilbach (2004) conclude that income per capita in Germany is directly related to various measures of entrepreneurship capital. Hence, as detailed in Kressel and Lanto (2012), startups are important for technological innovation, job creation, and economic growth.

Given its economic significance, researchers have been trying to identify the driving forces behind entrepreneurship. According to Saboe and Condliffe (2015), individuals are more likely to start new businesses in regions with a high presence of new and small firms and with institutions that promote entrepreneurial cultures. While spousal support from marriage makes financing startups more affordable, higher education suggests higher income and thus higher opportunity cost of starting new businesses. Using case studies in three Canadian cities, Spigel (2015) argues that interactions between cultural, social, and material elements in a region are important to entrepreneurial ecosystems. They impact entrepreneurs' motivation towards fast growth and acquisition or towards innovation and long-term investment in research and development.

Hence, there seems to be a strong regional effect on entrepreneurship and startup ecosystems. Indeed, a growing literature has been focusing on the causes and effects of geographic clustering of startups. For example, Delgado et al. (2010) find that new firm creation tends to accelerate in industries with access to or located within strong regional clusters. The presence of clusters is also conducive to the survival of startup firms. Glaeser and Kerr (2010) conclude that employment grows faster in areas with more small and independent firms. Thus, local governments should implement the quality of life policies that attract smart and entrepreneurial people instead of investing heavily in attracting large and mature firms. Florida and Mellander (2014) show that venture capital investments are moving away from suburbs and clustering again in urban centers with high levels of human capital.

All of these studies are interesting from academic and policymaking standpoints. They help us understand broadly how to foster and spread innovation. However, they fail to offer more region-specific information, especially given the importance of geographic clustering and regional cultural and social differences. Information more useful to entrepreneurs who are looking to start a business or investors who want to finance startups can include the following: the type of startups most popular in a particular region, their prospects for future acquisition and initial public offering (IPO), and the expectations on funding amount and structures.

Among the studies listed earlier, Florida and Mellander (2014) does provide statistics on venture capital investment at the state and city levels. Specifically, it finds that Southern California accounts for more than 11% of total venture capital investment in the US. As an urban center, Los Angeles is ranked 5th in the nation in terms of total venture capital investment and 16th in terms of per capita venture capital investment. Unfortunately, their paper does not go beyond venture capital investment and neither does it take a closer look at the industry level.

Against the above background, this study intends to fill the literature gap by looking into the characteristics of startups in Los Angeles. These characteristics include business areas, funding amount and rounds, key corporate actions such as IPO, acquisition, and shutdown. We examine them at both the city and the industry level, as well as compare and contrast them within the context of the US and California.

The above-listed characteristics reflect region-specific information about startups' industry types, funding sources, and survival statistics, all of which have been shown to correlate with the potential success of new entrants. As mentioned earlier, Delgado et al. (2010) find higher growth of new business formation and startup employment in industries with strong regional clusters. In other words, startups in a business area that is popular in the region are more likely to succeed. Pajunen and Jarvinen (2018) find that at least in biotechnology, public equity financing lowers a startup's failure rate while private equity financing increases the failure rate. Using a Danish data of wireless communication firms, Dahl et al. (2003) conclude that the performance of early entrants in the industry is positively associated with the success of the following entrants.

The rest of the paper proceeds as follows. We first describe our data source and then report the empirical results. Based on the results, we conclude with recommendations to entrepreneurs and investors who are interested in startups in Los Angeles.

Data

Crunchbase is a company that provides data on startups, including information of the organization, key people, product profile, funding amount and rounds, and events such as acquisition and IPO. Historical data collected by Crunchbase before December 2013 are freely available to applicants who have completed a simple online registration form. The present study takes advantage of this 2013 database, known as the Crunchbase 2013 Snapshot. All the analyses are based on the 2013 Snapshot.

This database consists of startups from 177 countries across the globe. Among all the countries, the US has the highest number of companies (51,637), followed by Great Britain (7,372), India (3,924), and Canada (3,728). There are 42 different categories for the type of business the startups are in. Some of the most popular industries are software (15%), web (12%), ecommerce (7%), games and video (6%), mobile (6%), advertising (5%), consulting (4%), enterprise (4%), and biotech (4%). This study only focuses on the companies located in the US. It is particularly interested in startups that list Los Angeles, California as their location region.

Results

An Overview of the US and California

Table 1 shows 12 states with the highest number of startups in the US. California is the leading state, boasting 32.46% of total startups in the country. It is followed by New York (11.28%), Massachusetts (5.7%), Texas (5.53%), and Florida (4.24%). For the remaining states not listed in the table, each of them has less than 2% share of total startups.

Table 1

Top States for Startups in the US, 2013

Across State			Within State			
State	# of startups	% of total	Operating	Acquired	IPO	Closed
CA	16,447	32.46%	83.59%	11.24%	1.66%	3.51%
NY	5,716	11.28%	88.87%	7.52%	1.17%	2.43%
MA	2,933	5.79%	80.94%	13.06%	3.51%	2.49%
TX	2,802	5.53%	86.58%	9.35%	1.71%	2.36%
FL	2,149	4.24%	91.02%	5.91%	1.44%	1.63%
WA	1,887	3.72%	85.32%	10.39%	1.75%	2.54%
IL	1,736	3.43%	87.33%	8.76%	1.73%	2.19%
PA	1,320	2.61%	86.14%	9.02%	1.97%	2.88%
NJ	1,179	2.33%	84.90%	10.69%	2.88%	1.53%
CO	1,172	2.31%	84.64%	10.67%	1.96%	2.73%
VA	1,156	2.28%	84.95%	11.33%	1.82%	1.90%
GA	1,119	2.21%	88.03%	8.40%	1.70%	1.88%

In contrast, California (3.51%) has the highest percentage of businesses that are closed, compared to New Jersey (1.53%), the state with the lowest percentage. Meanwhile, Massachusetts has the highest percentage of firms that get acquired (13.06%), followed by Virginia (11.33%) and California (11.24%). Massachusetts (3.51%) and New Jersey (2.88%) lead in startup IPOs by a large margin.

Table 2 gives more regional details on California. Los Angeles is second to San Francisco in terms of the number of startups in California. Los Angeles also has the lowest percentage of firms that are closed (2.78%), compared to the highest in Santa Barbara (3.98%). More startups get acquired in San Francisco (13.63%), while more firms go public in San Diego (3.27%).

Table 2

Top Regions for Startups in California, 2013

	Across Region		Within Region			
Region	# of startups	% of total	Operating	Acquired	IPO	Closed
San Francisco	9,942	60.48%	80.88%	13.63%	1.62%	3.87%
Los Angeles	4,032	24.53%	88.17%	7.61%	1.44%	2.78%
San Diego	1,191	7.24%	84.72%	9.15%	3.27%	2.85%
Sacramento	211	1.28%	88.15%	7.58%	0.95%	3.32%
Santa Barbara	176	1.07%	89.77%	3.98%	2.27%	3.98%

A Closer Look at Los Angeles

According to Tables 1 and 2, startups in Los Angeles are more likely to be operating compared to the national and California averages. Specifically, while about 88% of startups in Los Angeles stay operating, about 84% of startups in California and 86% in the US stay operating. However, a smaller percentage of startups in Los Angeles get acquired (7.6%) or go public (1.4%), compared to the national (9.6% acquired, 1.8% IPO) and California (11.2% acquired, 1.7% IPO) averages.

As shown in Table 3, the top industries for startups in Los Angeles are web, software, games and video, advertising, ecommerce, mobile, consulting, biotech, hardware, and enterprise. For the remaining categories, each of them has less than 2% share of startups in Los Angeles. The only exception is "other" category, which has about 8% of startups in the region. Companies in business areas such as ecommerce (95%), consulting (94%), and advertising (92%) are more likely to stay operating. Those in hardware (13%), web (11%), software (10%), and enterprise (10%) are more popular with acquisition. Startups in biotech (10%) outperform everyone else in terms of IPO, followed by hardware (4%) and consulting (3%) as a distant second and third.

Table 4 shows the top industries for startup funding in Los Angeles by the amount of funding. The majority of the startups (about 81%) have funding less than or equal to $1 million US dollars. Among the startups that receive more than $1 million US dollars in funding, those in biotech, cleantech, games and video, semiconductor, software, and web are more attractive to investors than others.

Table 5 shows the top industries for startup funding in Los Angeles by the number of funding rounds. Among the startups that receive funding, about 62% of them only receive one round of funding and about 22% receive two rounds of funding. For firms who receive three and more rounds of funding, those in biotech and enterprise are able to attract the highest number of funding rounds. Startups in advertising, semiconductor, software, and web are also popular among investors for multiple rounds of funding.

Table 3

Top Industries for Startups in Los Angeles, 2013

	Across Industry		Within Industry			
Industry	# of startups	% of total	Operating	Acquired	IPO	Closed
Web	472	11.71%	81.57%	11.44%	0.85%	6.14%
Software	420	10.42%	85.95%	9.76%	0.95%	3.33%
Games & video	340	8.43%	84.12%	8.53%	1.47%	5.88%
Advertising	263	6.52%	91.63%	6.46%	0.76%	1.14%
Ecommerce	255	6.32%	94.51%	2.75%	0.00%	2.75%
Mobile	185	4.59%	88.11%	6.49%	2.16%	3.24%
Consulting	133	3.30%	93.98%	2.26%	3.01%	0.75%
Biotech	122	3.03%	79.51%	9.02%	9.84%	1.64%
Hardware	104	2.58%	78.85%	13.46%	3.85%	3.85%
Enterprise	103	2.55%	88.35%	9.71%	1.94%	0.00%

Table 4

Top Industries for Startup Funding in Los Angeles by Amount, 2013

$1m – $5m	$5m – $10m	$10m – $50m	$50m – $100m	Above $100m
Biotech Software Web	Biotech Games & video Software Web	Biotech Games & video Software	Biotech Games & video Semiconductor	Biotech Cleantech

Table 5

Top Industries for Startup Funding in Los Angeles by Number of Rounds, 2013

3–5 Rounds	5–10 Rounds	More Than 10 Rounds
Advertising Software Web	Advertising Biotech Semiconductor	Biotech Enterprise

Conclusion

This paper examines the characteristics of startups in Los Angeles, California. Its main findings can be summarized as follows.

1. Los Angeles is the second most popular region for startups in California, which is the most popular state for startups in the US.
2. Startups in Los Angeles are more likely to stay operating but less likely to get acquired or go public.
3. In Los Angeles, firms in advertising, consulting, and ecommerce are more likely to stay operating. Meanwhile, those in enterprise, hardware, software, and web are more likely to get acquired. Biotech, consulting, and hardware are the leading industries for IPO.
4. The majority of the startups in Los Angeles receive less than or equal to $1 million US dollars in funding, and the number of funding rounds is usually smaller than three.
5. Among startups who receive funding, those in biotech, cleantech, games and video, semiconductor, software, and web attract more funds. At the same time, companies in advertising, biotech, enterprise, semiconductor, software, and web take the lead in the number of funding rounds.

Based on the results above, we make the following recommendations to entrepreneurs and investors. For entrepreneurs looking to start a business in Los Angeles, advertising, biotech, consulting, ecommerce, enterprise, hardware, software, and web are good industries to consider. Typically, one should expect to receive less than $1 million US dollars in funding and fewer than three rounds of funding, with the exception of industries such as advertising, biotech, cleantech, enterprise, games and video, semiconductor, software, and web.

For investors interested in startups in Los Angeles, companies in advertising, consulting, and ecommerce are good for long-term investment. Meanwhile, those in enterprise, hardware, software, and web are better acquisition candidates. The prospect of IPO is highest in biotech firms, followed by those in hardware and consulting. Typically, the total amount of funds needed is less than $1 million US dollars within 1–2 rounds. The outliers are startups in advertising, biotech, cleantech, enterprise, games and video, semiconductor, software, and web.

In general, advertising, biotech, and IT-related industries are better for entrepreneurship in Los Angeles. The success of advertising and IT startups might be attributed to economies of agglomeration (Romer, 1986). For example, one can easily find actors, actresses, and film production services to make a commercial thanks to Hollywood. Also, the city is becoming the next tech hub as tech elites start leaving Silicon Valley and moving to Los Angeles (Peltz and Pierson, 2018). This makes finding workers, partners, and investors for IT-related enterprises easier and cheaper. For biotech, firm alliances with universities and research institutes have been found conducive to the success of startups (Pajunen and Jarvinen, 2018). Los Angeles is not only a big city with diverse talents but is home to many well-known universities and research institutes such as USC, UCLA, and RAND Corporation.

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References

Audretsch, D., & Keilbach, M. (2004). Does entrepreneurship capital matter? *Entrepreneurship Theory and Practice*, 28(5), 419-430.

Boente, W., Heblich, S., & Jarosch, M. (2008). Entrepreneurship capital, knowledge spillovers and regional productivity: Some empirical evidence from European regions. IAREG Working Paper No. 3/05.

Bunten, D., Weiler, S., Weiler, S., Zahran, S. (2015). Entrepreneurship, information, and growth. *Journal of Regional Science*, 55(4), 560-584.

Dahl, M.S., Pedersen, C. R., & Dalum, B. (2003). Entry by spinoff in a high-tech cluster. Danish Research Unit for Industrial Dynamics (DRUID) Working Paper No. 03-11.

Delgado, M., Porter, M.E., & Stern, S. (2010). Clusters and entrepreneurship. *Journal of Economic Geography*, 10, 495-518.

Florida, R., & Mellander, C. (2014). Rise of the startup city: The changing geography of the venture capital financed innovation. CESIS Electronic Working Paper No. 377.

Glaeser, E.L., & Kerr, W.R. (2010). What makes a city entrepreneurial? In *Rappaport Institute/Taubman Center Policy Briefs*, John F. Kennedy School of Government, 1-4.

Holtz-Eakin, D., & Kao, C. (2003). Entrepreneurship and economic growth: The proof is in the productivity. Center for Policy Research Working Paper No. 50.

Kane, T. (2010). The importance of startups in job creation and job destruction. Kauffman Foundation Research Series: Firm Formation and Economic Growth.

Kressel, H., & Lento, T.V. (2012). *Entrepreneurship in the Global Economy: Engine for Economic Growth*. New York, NY: Cambridge University Press.

Pajunen, K., & Jarvinen, J. (2018). To survive or succeed? An analysis of biotechnology firms. *Small Business Economics*, 51, 757-771.

Peltz, J.F., & Pierson, D. (2018, February 2). Peter Thiel, retreating from Silicon Valley's tech scene, is moving to L.A. Retrieved from *Los Angeles Times*: https://www.latimes.com/business/la-fi-peter-thiel-20180215-story.html

Romer, P.M. (1986). Increasing returns and long-run growth. *Journal of Political Economy*, 94, 1002-1037.

Saboe, M., & Condliffe, S. (2015). The influence of local social and industrial characteristics on emergent entrepreneurship. *Review of Regional Studies*, 45, 203-20.

Spigel, B. (2015). The relational organization of entrepreneurial ecosystems. *Entrepreneurship Theory and Practice*, 41, 49-72.