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Do Venture Capitalists Succeed Outside their Comfort Zone?

*An empirical study of venture capital firms' performance as
they move into new nations or industries*

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Abstract

This thesis aims to analyze the performance of venture capitalists (VCs) at the moment they invest in new nations or industries. Our sample consists of 29,172 venture capital backed entrepreneurial firms from 43 different nations in the 20-year period from 1989 through 2008. We use entrepreneurial firm exit by IPO or M&A as our metric for success. We find that entrepreneurial firms backed by syndicates of VCs investing in their industry for the first time are less likely to have a successful exit. However, these results turn out to be insignificant when including year-fixed effects. When looking at syndicates of VCs who invest in nations for the first time we do not find any significant evidence that they perform better or worse than other VCs. We also look at the performance of VCs who invest marginally in foreign nations or invest in industries that are outside their industry preference. We do not find any significant evidence that VCs who invest marginally in foreign nations perform better or worse than other VCs. However, we do find some significant results indicating that entrepreneurial firms backed by VCs investing outside their preferred industry are less likely to have a successful exit.

Preface

This master thesis represents the end of a long and rewarding period of research, and also the end of a five-year study of economics.

I would like to thank my supervisor Tyler Hull for providing me with the dataset that I used to create the sample. I would also like to thank him for his invaluable feedback throughout the thesis, as well as giving me hints a few times when I was stuck in Stata.

As a student with no background in econometrics or programming, I found it challenging, but also fun to jump straight into such an analytic and quantitative task. I did not have any experience in using Stata prior to writing this thesis. It has been a steep learning curve with lots of new insight in venture capital and how to do robust research.

Contents

1. INTRODUCTION	5
2. LITERATURE REVIEW	7
3. DEVELOPMENT OF HYPOTHESES.....	9
4. SAMPLE SELECTION, DESCRIPTION OF DATA AND CONSTRUCTION OF VARIABLES .	11
4.1 SAMPLE SELECTION	11
4.2 DESCRIPTION OF DATA	12
4.3 CONSTRUCTION OF VARIABLES	12
5. EMPIRICAL RESULTS	16
5.1 NATION EXPERIENCE AND SUCCESSFUL EXIT.....	16
5.1.1 <i>No Prior Nation Experience</i>	16
5.1.2 <i>Low Nation Experience</i>	16
5.2 INDUSTRY EXPERIENCE AND SUCCESSFUL EXIT	17
5.2.1 <i>No Prior Industry Experience</i>	17
5.2.2 <i>Uncommon Industry Preference</i>	17
6. CONCLUSION	19
REFERENCES.....	20

1. Introduction

Venture capitalists (VCs) have for the last decades been considered an important factor in the development of nations. Venture capital backing of companies is often associated with the creation of jobs, innovation and GDP growth.

The venture capital business started to take shape in the U.S. after World War II, and the U.S. has been home to the majority of past venture capital investments. However, in the last twenty years we have experienced a substantial growth in cross-border and foreign VC investments. Venture capitalists have been gradually moving into unknown territory by taking investment opportunities in other nations, particularly in emerging nations. Along with this, research has surfaced on the performance of VCs operating in foreign nations, especially research related to conditions in the nation of the entrepreneurial firm and how they affect performance. This research explores similarities or dissimilarities between the nation of the VC and the nation of the entrepreneurial firm. However, no one seems to have raised the fundamental question of whether entering into unknown territory is a good idea or not. Furthermore, there exists little research on how VCs perform when they do something they have never done before. In this paper we seek to explore if VCs actually perform significantly better or worse when they decide to venture into new nations. According to recent research by Chemmanur, Hull and Krishnan (2013), there is reason to believe that venture capitalists investing in nations for the first time are less likely to succeed because of lack of local knowledge and monitoring problems. This is one of the main driving forces behind this paper. The empirical analysis in this paper attempts to address the question of whether entrepreneurial firms backed by VCs with no prior experience in their nation are more or less likely to have a successful exit. We build also explore this further in a broader perspective by looking at the performance of firms who invest marginally in foreign nations.

The questions asked above can also be raised on an industry-level. One can argue that there exists less research exploring the movement of VCs between industries than there does between nations. Most VCs seem to favor specialization over diversification when it comes to investing in industries. This is likely due to advantages of having past experience and specialized knowledge when screening entrepreneurial firms or when providing industry-related advice. However, a lot of VCs still venture into new industries with no prior experience. As with nations, there is reason to believe that some of the knowledge possessed

by VCs is purely industry-related, and therefore will not be relevant if VCs decide to enter into a new industry. With this in mind, we look for signs of changes in performance among VCs who invest in an industry for the first time. We also explore this further in a broader perspective by analyzing the performance of VCs who invest in industries uncommon for their industry preference.

2. Literature Review

This paper is related to several works in the entrepreneurial finance and corporate finance literature over the last decades. This first part of literature this paper is related to is that of value added by VCs to entrepreneurial firms either through capital or knowledge. Hellmann and Puri (2002) analyze a sample of Silicon-Valley firms and find that VCs add value beyond capital by helping firms develop their human resources. This includes replacing inefficient managers, adding marketing VPs, policies and stock options plans. Lelarge, Sraer, and Thesmar (2012) look at a French loan guarantee program and find that a loan guarantee helps new entrepreneurial firms grow faster and with a lower cost of capital, however with a higher probability of default. Samila and Sorenson (2011) find that an increase in capital supply to entrepreneurial firms positively affects the number of firms, employment rate and aggregate income. Lerner (1994) uses a sample of biotechnology firms to analyze how syndicates cooperate in different investment stages. Brander, Amit and Antweiler (2002) uses a Canadian sample to find that VCs who syndicate have higher returns.

The second part of literature this paper is related to is that on VC investments across nations. Jeng and Wells (2000) find that IPOs are the strongest driver for VCs, and that they have a significant effect on investments across nations in late-stage firms but not in early-stage firms. Nahata, Hazarika and Tandon (2009) analyze cultural differences between the nation of entrepreneurial firm and the nation of the VC. They find that cultural differences between the nation of the VC and the nation of the entrepreneurial firm are positively related to a successful exit. However, in a more recent paper, Chemmanur, Hull and Krishnan (2013) find the opposite when using the same measures but controlling for entrepreneurial firm country-fixed effects. Chemmanur et. al. (2013) also find that entrepreneurial firms backed by syndicates consisting of both local and international VCs are more likely to be successful than those backed by syndicates of only local or international VCs. This paper expands on this by analyzing how syndicates perform when they have no prior experience in the nation of the entrepreneurial firm. Balcarcel, Hertzels and Lindsey (2010) find that U.S. VC investments abroad have fewer investment rounds and larger investments per round if the nation of the entrepreneurial firm has poor legal enforcement.

The third part of literature this paper is related to is that on VC investments across industries. Norton and Tenenbaum (1993) observe that VCs prefer to specialize rather than diversify

across investment-stages and industries. This paper expands further on this by analyzing how VCs perform when they decide to move into new industries.

3. Development of Hypotheses

The first area that we are interested in examining is the area related to nation experience on the probability of success. We would assume that VCs with little to no prior experience in a nation have less experience with nation-related factors such as culture, laws and language compared to VCs with a larger amount of investments in the same nation. These factors are all commonly known challenges when operating in an international business environment. VCs are also likely to be affected by the investment environment existing in the nation of the entrepreneurial firm, such as how developed the IPO market is. If it is true that nation-related factors are important for determining success, we would assume that entrepreneurial firms backed by one or more VCs with no prior experience in their nation are less likely to be successful than entrepreneurial firms backed by VCs with prior experience in their nation (H1). Consistent with this idea, we also expect VCs to underperform in nations that account for a small percentage of their total investments. (H2).

The other area that we are interested in examining is the area related to the importance of industry experience when investing in entrepreneurial firms. We would assume that VCs with little to no prior experience in an industry have less industry-related knowledge and expertise than already well-established VCs in the same industry. For example, the knowledge and expertise required to succeed in biotechnology is different from for example the Internet specific industry. On one hand, determining the potential success and generating extra value for a firm in the biotechnology industry would likely require the VC to have extensive knowledge of chemical engineering and bioprocess engineering. On the other hand, VCs investing in an Internet related firm, say an e-commerce firm would likely need knowledge of web design, distribution technology and other areas that are mostly unrelated to the biotechnology industry.

Certain expertise is likely transferable and relevant between some industries, particularly on a management level. However, knowledge of how to time cash flows in a given industry, knowledge of market conditions, the potential customer base and the technical industry-related knowledge mentioned above is not necessarily transferable from one industry to another. This knowledge is also likely to be harder to transfer between some industries than others. For example, it's likely to believe that a VC who prefers to invest in data communications can transfer more of its knowledge to computer hardware than to

biotechnology. If this industry-knowledge from a VC is important in order to determine success, we expect that entrepreneurial firms backed by a VC who is investing far outside its preferred industry is less likely to be successful (H3). If we assume that this industry-knowledge is something that is gained over time by repeated investments in an industry, we expect that entrepreneurial firms backed by VCs who are investing in the industry for the first time are less likely to be successful (H4).

4. Sample Selection, Description of Data and Construction of Variables

4.1 Sample selection

Our sample of venture capital backed firms is taken from the VentureXpert database over the twenty-year period from 1989 to 2008. Buyouts and private equity investments are excluded from our sample so that it only contains VC investments. Because of the increasing importance of emerging nations in cross-border and foreign investments the last year, we divide our sample between developed and emerging nations. The World Bank's classifies high-income nations as nations with a 2008 GNI per capita of \$11,906 or more. We use this as an indicator of a developed country.

The VentureXpert database contains information on the nation of the investing VC, as well as the nation of the entrepreneurial firm receiving venture capital funding. This allows us to see how many times a VC has invested in a specific nation, or when a VC decides to invest in a new nation for the first time. The dataset also contains information on the preferred industry of the VC as well as the industry of the entrepreneurial firm receiving venture financing. Furthermore, this allows us to see how many times a VC has invested in a given industry, as well as what its preferred industry actually is.

In order to exclude outlining nations, we remove observations from nations with less than 10 entrepreneurial firms receiving VC funding. We also remove entrepreneurial firms that are undisclosed and therefore listed without a name. In order to exclude more outlining nations, we remove observations from VCs belonging to nations with less than 5 VCs in total. We also remove observations from VCs that are undisclosed and therefore listed without a name. In order to exclude outlining industry preferences, we remove observations from VCs with an industry preference shared by less than 10 VCs. We also remove observations from VCs with a missing industry preference.

Our final sample consists of 29,172 entrepreneurial firms from 43 different nations, backed by 3,167 VCs from 34 different nations.

4.2 Description of Data

Table 1 shows the distribution of entrepreneurial firms across countries in the sample. We observe that the majority of entrepreneurial firms in developed nations in our sample are based in the United States (70.62 percent). Other developed nations with a notable amount of entrepreneurial firms are the United Kingdoms (5.63 percent), South Korea (3.70 percent), France (2.96 percent) and Canada (2.80 percent). As for emerging nations, the majority of investments are in India (38.89 percent) and China (34.36).

Panel A of Table 2 reports the distribution of entrepreneurial firms across different industries in the sample. The biggest industry in terms of number of entrepreneurial firms is the Internet Specific industry (23.66 percent in emerging nations, 21.11 percent in developed nations) closely followed by Other Products (23.41 percent) in emerging nations and Computer Software and Services (20.26) in developed nations.

Panel B of Table 2 reports the distribution of VCs across different industry preferences in the sample. The industry preference shared by the most VCs is Information Technology (15.22 percent), followed by High Tech (12.44 percent) and Telecommunications (10.29 percent).

Panel A of Table 3 reports the distribution of venture capital investments in entrepreneurial firms across years in the sample. Observations are reported based on the first time an entrepreneurial receives VC-funding. Most notable is the dot-com bubble starting in the year 1998 with 1,474 firms in developed nations growing to a peak of 5,964 in year 2000 before falling back to 1,292 firms in 2002. The bubble was even stronger in our sample for emerging nations percentage-wise, however with much fewer firms.

4.3 Construction of Variables

Panel B of Table 3 reports summary statistics for most of the variables used in this paper. The variables that are not included in Panel B of Table 3 are dummy variables with changing conditions and therefore changing means. These variables are described in more detail towards the end of this section. We show the means and medians for the variables and table 3 and compare them between emerging and developed nations. We find that most of these control variables have lower means and medians in emerging nations than in developed nations. This is consistent with other recent research on emerging nations.

First time nation VC is a dummy variable that equals one if at least one of the investing VCs in an entrepreneurial firm is investing in the entrepreneurial firm's nation for the first time, and zero otherwise. This variable also equals zero if an investment is made in the home nation of the VC, thus only accounting for first time investments in other nations than its own.

No nation experience is a dummy variable that equals one if all investing VCs in an entrepreneurial firm are investing in the entrepreneurial firm's nation for the first time, and zero otherwise. It is meant to be a stricter version of *First time nation VC* by requiring all investing VCs to have zero prior experience in the nation of the entrepreneurial firm they are investing in. This variable also equals zero if any one of the investing VCs are from the same nation as the entrepreneurial firm and investing in its home nation for the first time.

First time industry VC is a dummy variable that equals one if at least one of the investing VCs in the entrepreneurial firm is investing in the entrepreneurial firm's industry for the first time, and zero otherwise. This variable also equals zero if the industry is the first industry ever invested in by a VC, thus only counting investments in new industries after the startup of a VC.

No industry experience is a dummy variable that equals one if all of the investing VCs are investing in the entrepreneurial firm's industry for the first time, and zero otherwise. It is meant to be a stricter version of *First time industry VC* by requiring all investing VCs to have zero prior experience in the industry of the entrepreneurial firm they are investing in. This variable also equals zero if the industry is the first industry ever invested in by any of the VCs, thus only counting investments in new industries after the startup of the VCs.

Number of rounds is the total number of rounds of VC-funding that the entrepreneurial firm receives.

Number of VCs is the total amount of VCs investing in the entrepreneurial firm.

VC age is the average age of all VCs investing in the entrepreneurial firm.

VC experience is the combined total number of firms members of a VC syndicate has invested in since the first observation in the dataset.

VC investment amount is the log of total amount of money invested by the VCs in the entrepreneurial firm across all rounds in thousands of dollars.

Low nation experience VC is a dummy variable that equals one if at least one of the investing VCs in an entrepreneurial firm has less than a certain percentage of their total worldwide investments in the nation of the entrepreneurial firm, and zero otherwise. For example, if one of the VCs investing in an entrepreneurial firm has invested in a total of 10 entrepreneurial firms in the sample, and 1 of its investments are in the nation of the entrepreneurial firm (10 percent), the dummy variable would be one for condition (1) 15 percent, but zero for condition (2) 10 percent and (3) 5 percent. As the condition for the variable changes, so do the frequency of observations and the mean of the variable. Therefore, the frequency of this variable is reported at the bottom of each regression under a given condition.

Low average nation experience is a dummy variable created to respond to a low average nation experience among the investing VCs. It is similar to *Low nation experience VC*, but here we create a weighted average of all the investing VCs experience. The average is weighted based on number of investment rounds that each VC participates in. The dummy variable equals one if the weighted average nation experience of all investing VCs is lower than a certain percentage, and zero otherwise. As the condition for the variable changes, so do the frequency of observations and the mean of the variable. Therefore, the frequency of this variable is reported at the bottom of each regression under a given condition.

VC with uncommon industry preference is a dummy variable created to react to VCs investing in industries that are uncommon for their industry preference. For example, if we were to look at the industry preference of Alternative Energy, and how VCs with that preference invest across different industries, we would see that they are least likely to invest in Consumer Related (2.55 percent), Computer Hardware (4.95 percent) and Other Products (7.20 percent). If we choose to define uncommon industry preference as (2) Less than 5 percent, an entrepreneurial firm belonging to either Consumer Related or Computer Hardware who has an investing VC with an industry preference of Alternative Energy would make the dummy variable one. Furthermore, an entrepreneurial firm belonging to Other Products who has an investing VC with an industry preference of Alternative Energy would make the dummy variable zero. As the condition for the variable changes, so do the

frequency of observations and the mean of the variable. Therefore, the frequency of this variable is reported at the bottom of each regression under a given condition.

Uncommon industry preference is similar to *VC with uncommon industry preference*, but here we make a weighted average of the variable among all VCs similar to what we did with nation experience. Furthermore, the variable becomes a stricter version of *VC with uncommon industry preference* by taking the average of all investing VCs and requiring it to be low instead of only demanding one single uncommon industry preference from one VC.

5. Empirical Results

5.1 Nation Experience and Successful Exit

5.1.1 No Prior Nation Experience

We conduct logit regressions to analyze the probability of exit for venture capital backed firms through IPOs and M&As. The exit of venture capital backed firms is the main measure for success in venture capital literature. This is due to the exit being the main point in time where VCs get to potentially cash back on their investments made in the firm. Successful exit (exit through IPO or M&A) will be our dependent variable and indicator of success throughout the analysis.

Table 4 reports the results of logit regressions using two different independent variables together with the control variables. We find that the coefficient of *First time nation VC* is insignificant in both emerging and developed nations.

In Table 5, we find that *No nation experience* is also insignificant. Therefore, we cannot conclude that VCs perform better or worse when investing in new nations for the first time. We do however find that the control variables VC investment amount and number of VCs are significantly positively related to successful exit even after controlling for year- and nation-fixed effects.

5.1.2 Low Nation Experience

Table 6 reports the results of logit regressions using the independent variable *Low nation experience VC* together with the control variables. We find that the coefficient of *Low nation experience VC* is insignificant for all of the three proposed conditions.

Table 7 reports the results of logit regressions using the independent variable *Low average nation experience* together with the control variables. We find that this variable has a lower frequency and thus a lower mean than the *Low nation experience VC* variable. This is because it is a stricter variable requiring more VCs to have a low nation experience. We find that the coefficient of *Low average nation experience VC* is for all of the three proposed conditions.

We do not find any significant evidence to support our hypothesis (H1) or (H2) that VCs perform worse when investing in nations for the first time, or underperform in nations that account for a small percent of their total investments.

5.2 Industry Experience and Successful Exit

5.2.1 No Prior Industry Experience

Table 8 reports the results of logit regressions using the independent variable *First time industry VC* together with the control variables. We originally find that the coefficient of *First time industry VC* is negative and significant when controlling for fixed nation- and industry-effects. However, when controlling for fixed year-effects the results turn insignificant.

In Table 9 we originally find that *No industry experience* is significantly negative, and has a stronger coefficient than *First time industry VC*. These findings are significant when controlling for fixed nation- and industry-effects. However, these findings do turn insignificant when including fixed year-effects in the regression.

We find no significant evidence that entrepreneurial firms backed by VCs who are investing in their industry for the first time are more or less likely to have a successful exit. Therefore, we do not find robust enough results for our hypothesis (H4) to conclude that VCs perform worse when investing in industries for the first time.

5.2.2 Uncommon Industry Preference

Table 10 reports the results of logit regressions using the independent variable *VC with uncommon industry preference* together with the control variables. We find that the coefficient of *VC with uncommon industry preference* is significantly negative for all the conditions listed in the table. This holds true even when controlling for year, nation and industry-fixed effects. Given the control variables used in this paper, we find support for our hypothesis (H3) that entrepreneurial firms backed by VCs who invest far outside their industry preference are less likely to have a successful exit.

Table 11 reports the results of logit regressions using the independent variable *Uncommon industry preference* together with the control variables. This stricter version of the *VC with*

uncommon industry preference variable also reports significant negative results under condition (1) and (2) in the table. However, the results are now insignificant under condition (3) where we define uncommon industry preference as less than 3 percent. We observe that the frequency and thus the mean of this variable is a bit lower than *VC with uncommon industry preference* because it is a stricter version of it.

6. Conclusion

We analyze the performance of VCs moving out of their comfort zone as they invest in new nations or industries. We look at the potential exit success of entrepreneurial firms backed by VCs who are investing in nations or industries for the first time. We also look for signs of worse performance from VCs with small investments in foreign nations, or VCs who invest far outside their industry preference.

We find that entrepreneurial firms backed by at least one VC investing in their nation for the first time are less likely to have a successful exit than other entrepreneurial firms. However, we do not find significant results when looking at entrepreneurial firms backed only by VCs who invest in their nation for the first time. When looking at the performance of VCs who invest in foreign nations, we do not find any consistent results that they perform better or worse than purely local or highly international VCs. Because of these findings, we cannot conclude that VCs perform neither better or worse when stepping out of their comfort zone and investing in other nations.

We find that entrepreneurial firms backed by at least one VC investing in their industry for the first time are less likely to have a successful exit than other entrepreneurial firms. These results are also stronger when looking at entrepreneurial firms backed only by VCs who invest in their industry for the first time. However, when controlling for year-fixed effects these results turn insignificant.

When looking at VCs who invest far outside their stated industry preference we find that they are less likely to generate successful exits. This holds true with the control variables used in this paper, and also when controlling for year, nation and industry-fixed effects. This supports the thought that VCs investing in industries that are uncommon for them add less value to entrepreneurial firms than other VCs due to lack of industry-related knowledge and expertise.

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Table 1: Venture capital investments across different nations

This table reports the distribution of entrepreneurial firms receiving venture capital financing based on the nation of the entrepreneurial firm. The nations are sorted between emerging and developed nations. The total number of entrepreneurial firms in a given nation is noted by frequency and percentage relative to total entrepreneurial firms in either emerging or developed nations. Developed nations are nations classified by the World Bank as high-income nations with a 2008 GNI per capita of \$11,906 or more.

Emerging Nations	Frequency	Percentage	Developed Nations	Frequency	Percentage
Argentina	15	0.94	Australia	453	1.64
Brazil	126	7.93	Austria	57	0.21
China	546	34.36	Belgium	183	0.66
India	618	38.89	Canada	773	2.80
Indonesia	16	1.01	Czech Republic	11	0.04
Malaysia	63	3.96	Denmark	182	0.66
Mexico	13	0.82	Finland	153	0.55
Philippines	13	0.82	France	816	2.96
Poland	67	4.22	Germany	553	2.00
Romania	9	0.57	Hong Kong	127	0.46
Russia	43	2.71	Hungary	47	0.17
South Africa	30	1.89	Iceland	4	0.01
Thailand	27	1.70	Ireland	179	0.65
Vietnam	3	0.19	Israel	402	1.46
			Italy	83	0.30
			Japan	192	0.70
			Luxembourg	15	0.05
			Netherlands	143	0.52
			New Zealand	50	0.18
			Norway	116	0.42
			Portugal	78	0.28
			Singapore	147	0.53
			South Korea	1,021	3.70
			Spain	162	0.59
			Sweden	303	1.10
			Switzerland	146	0.53
			Taiwan	154	0.56
			United Kingdom	1,554	5.63
			United States	19,479	70.62

**Table 2: Venture capital investments in different industries
and distribution of industry preference of investing VCs**

Panel A of this table reports the distribution of venture capital investments in entrepreneurial firms based on the industry of the entrepreneurial firm. Frequencies and percentages are noted separately for emerging and developed nations. Panel B reports the distribution of venture capitalists based on their industry preference.

<i>Panel A: Industry Distribution of VC-backed Firms</i>				
Industry	Emerging Nations		Developed Nations	
	Frequency	Percentage	Frequency	Percentage
Biotechnology	36	2.27	1,851	6.71
Communications and Media	141	8.87	2,749	9.97
Computer Hardware	58	3.65	1,167	4.23
Computer Software and Services	180	11.33	5,588	20.26
Consumer Related	157	9.88	1,485	5.38
Industrial/Energy	119	7.49	1,365	4.95
Internet Specific	376	23.66	5,822	21.11
Medical/Health	84	5.29	2,870	10.4
Other Products	372	23.41	2,689	9.75
Semiconductors/Other Elect.	66	4.15	1,997	7.24

<i>Panel B: Industry Preference Distribution of VCs</i>					
Industry Preference	Freq.	Percent.	Industry Preference	Freq.	Percent.
Alternative Energy	27	0.85	Information Technology	482	15.22
Applications Software	13	0.41	Internet	258	8.15
Biotechnology	145	4.58	Life Science	125	3.95
CATV & Pay TV Systems	17	0.54	Manufacturing	44	1.39
Commercial Comm.	120	3.79	Media	27	0.85
Communications and Media	239	7.55	Media and Entertainment	12	0.38
Computer Related	40	1.26	Medical Diagnostics	23	0.73
Consumer	31	0.98	Medical Products	25	0.79
Data Communications	74	2.34	Medical Therapeutics	17	0.54
E-Commerce Technology	14	0.44	Medical/Health	94	2.97
Electronics	28	0.88	Pharmaceuticals	21	0.66
Energy	46	1.45	Radio & TV Broadcasting	19	0.60
Environment Responsible	17	0.54	Real Estate	11	0.35
Environmental Related	13	0.41	Retail	13	0.41
Financial Services	37	1.17	Semiconductor	23	0.73
Food/Beverage	15	0.47	Services	30	0.95
Health Services	34	1.07	Software	142	4.48
High Tech	394	12.44	Telecommunications	326	10.29
Human Biotechnology	61	1.93	Transportation	12	0.38
Industrial Products	22	0.69	Wireless Comm.	76	2.40

Table 3: Description of data

Panel A of this table reports the year distribution of entrepreneurial firms based on the first year an entrepreneurial firm receives VC funding. Panel B reports the mean and median of the following variables: *First time nation VC* is a dummy variable that equals one if at least one of the investing VCs in an entrepreneurial firm is investing in the entrepreneurial firm's nation for the first time, and zero otherwise; *No nation experience*, which is a dummy variable that equals one if all investing VCs are investing in the entrepreneurial firm's nation for the first time, and zero otherwise; *First time industry VC*, which is a dummy variable that equals one if at least one of the investing VCs in the entrepreneurial firm is investing in the entrepreneurial firm's industry for the first time, and zero otherwise; *No industry experience*, which is a dummy variable that equals one if all of the investing VCs are investing in the entrepreneurial firm's industry for the first time, and zero otherwise; *Number of rounds* is the total number of rounds of VC-funding that the entrepreneurial firm receives; *Number of VCs* is the total amount of VCs investing in the entrepreneurial firm; *VC age* is the average age of all VCs investing in the entrepreneurial firm; *VC experience* is the total number of past investments by the VCs; *VC investment amount* is the log of total amount of money invested by the VCs in the entrepreneurial firm. All other variables are described in detail in the "Data, Sample Selection, and Construction of Variables" section of the paper, as well as briefly in their respective tables.

<i>Panel A: Year Distribution of VC-backed Firms</i>					
Year	Emerging Nations		Developed Nations		
	Frequency	Percentage	Frequency	Percentage	
1989	4	0.25	1,202	4.36	
1990	3	0.19	568	2.06	
1991	7	0.44	335	1.21	
1992	13	0.82	457	1.66	
1993	10	0.63	356	1.29	
1994	15	0.94	418	1.52	
1995	29	1.83	772	2.8	
1996	58	3.65	1,121	4.06	
1997	51	3.21	1,248	4.52	
1998	39	2.45	1,474	5.34	
1999	109	6.86	2,734	9.91	
2000	306	19.26	4,964	18	
2001	116	7.3	2,302	8.35	
2002	75	4.72	1,292	4.68	
2003	88	5.54	1,147	4.16	
2004	69	4.34	1,282	4.65	
2005	98	6.17	1,538	5.58	
2006	143	9	1,446	5.24	
2007	156	9.82	1,533	5.56	
2008	200	12.59	1,394	5.05	

Panel B: Summary Statistics for Created Variables

		Emerging Nations	Developed Nations	Difference
First time nation VC	Mean	0.313	0.078	0.236***
No nation experience	Mean	0.117	0.025	0.092***
First time industry VC	Mean	0.242	0.268	-0.026***
No industry experience	Mean	0.137	0.077	0.060***
Number of rounds	Mean	1.393	2.384	-0.991***
	Median	1.000	2.000	-1.000***
Number of VCs	Mean	1.826	2.416	-0.590***
	Median	1.000	2.000	-1.000***
VC age	Mean	7.881	9.570	-1.689***
	Median	8.000	9.471	-1.471***
VC experience	Mean	211.69	283.64	-71.95***
	Median	23.00	82.00	-59.00***
VC investment amount (Log thousands US\$)	Mean	7.988	8.266	-0.278***
	Median	8.204	8.450	-0.246***
	Observations	1,589	27,583	

Table 4: Effect of no nation experience from at least one VC on the probability of exit

This table reports the results of logit estimations using a successful exit dummy as the dependent variable. The successful exit dummy equals one if the entrepreneurial firm has a successful exit (i.e., initial public offering or mergers and acquisitions), and zero otherwise. The independent variables are: *First time nation VC*, which is a dummy variable that equals one if at least one of the investing VCs is investing in the entrepreneurial firm's nation for the first time, and zero otherwise; *No nation experience*, which is a dummy variable that equals one if all investing VCs are investing in the entrepreneurial firm's nation for the first time, and zero otherwise. All other independent variables are control variables described in Table 3 and in the "Construction of Variables" section. We also control for fixed effects in the first year of financing and in the nation of the entrepreneurial firm. In parentheses are heteroskedasticity corrected robust standard errors, which are clustered on the nation of the firm. ***, **, and * represent statistical significance at the 1, 5, and 10 percent levels respectively.

	(1)	(2)	(3)
	Emerging Nations	Developed Nations (excl. U.S.)	Developed Nations (incl. U.S.)
First time nation VC	0.154 (0.234)	-0.0375 (0.0985)	-0.00803 (0.0836)
Number of rounds	0.0416 (0.0784)	-0.0523 (0.0429)	-0.0612*** (0.00626)
Number of VCs	0.0790* (0.0479)	0.118*** (0.0186)	0.0774*** (0.00736)
VC age	-0.00898 (0.0186)	0.000754 (0.0130)	-0.00587 (0.00559)
VC experience	-0.000271*** (6.88e-05)	-0.000115 (9.57e-05)	-2.55e-05 (3.58e-05)
VC investment amount	0.462*** (0.0597)	0.347*** (0.0289)	0.324*** (0.0120)
Observations	1,589	8,104	27,583
Pseudo R-sq	0.152	0.129	0.156

Table 5: Effect of no nation experience from all VCs on the probability of exit

This table reports the results of logit estimations using a successful exit dummy as the dependent variable. The successful exit dummy equals one if the entrepreneurial firm has a successful exit (i.e., initial public offering or mergers and acquisitions), and zero otherwise. The main independent variable here is *No nation experience*, which is a dummy variable that equals one if all investing VCs are investing in the entrepreneurial firm's nation for the first time, and zero otherwise. All other independent variables are control variables described in Table 3 and in the "Construction of Variables" section. We also control for fixed effects in the first year of financing and in the nation of the entrepreneurial firm. In parentheses are heteroskedasticity corrected robust standard errors, which are clustered on the nation of the firm. ***, **, and * represent statistical significance at the 1, 5, and 10 percent levels respectively.

	(1)	(2)	(3)
	Emerging Nations	Developed Nations (excl. U.S.)	Developed Nations (incl. U.S.)
No nation experience	0.388 (0.240)	0.0256 (0.144)	0.0409 (0.134)
Number of rounds	0.266*** (0.0602)	-0.0976** (0.0482)	-0.115*** (0.00639)
Number of VCs	0.0898*** (0.0323)	0.160*** (0.0191)	0.0791*** (0.0190)
VC age	-0.0483*** (0.0186)	-0.000168 (0.0138)	-0.00650 (0.00515)
VC experience	-0.000264*** (7.99e-05)	-0.000148 (0.000107)	-2.34e-05 (3.66e-05)
VC investment amount	0.300*** 0.388	0.326*** (0.0299)	0.325*** (0.00777)
Observations	1,589	8,104	27,583
Pseudo R-sq	0.054	0.130	0.156

Table 6: Effect of low nation experience from at least one VC on the probability of exit

This table reports the results of a logit estimation using a successful exit dummy as the dependent variable. The successful exit dummy equals one if the entrepreneurial firm has a successful exit (i.e., initial public offering or mergers and acquisitions), and zero otherwise. The main independent variable is *Low nation experience VC*, which is a dummy variable that equals one if at least one of the investing VCs in an entrepreneurial firm has less than (1) 15 percent, (2) 10 or (3) 5 percent of their total worldwide investments in the nation of the entrepreneurial firm, and zero otherwise. This variable is described in more detail under the "Construction of Variables" section of the paper. All other independent variables are control variables described in Table 3 and in the "Construction of Variables" section. We also control for fixed effects in the first year of financing and in the nation of the entrepreneurial firm. *Frequency* reports total number of entrepreneurial firms with a *Low nation experience VC* under a given condition. In parentheses are heteroskedasticity corrected robust standard errors, which are clustered on the nation of the firm. ***, **, and * represent statistical significance at the 1, 5, and 10 percent levels respectively.

	(1)	(2)	(3)
	Less than 15 percent	Less than 10 percent	Less than 5 percent
Low nation experience VC	0.0975 (0.0846)	0.134* (0.0742)	0.125 (0.0868)
Number of rounds	-0.0629*** (0.00676)	-0.0582*** (0.00670)	-0.0597*** (0.00703)
Number of VCs	0.0678*** (0.00897)	0.0689*** (0.00836)	0.0740*** (0.0103)
VC age	-0.00612 (0.00546)	-0.00644 (0.00542)	-0.00522 (0.00530)
VC experience	-2.72e-05 (4.67e-05)	-4.38e-05 (4.76e-05)	-3.69e-05 (4.87e-05)
VC investment amount	0.333*** (0.0118)	0.330*** (0.0125)	0.328*** (0.0134)
Frequency	3,205	2,734	1,994
Observations	29,172	29,172	29,172
Pseudo R-sq	0.159	0.159	0.159

Table 7: Effect of low average nation experience from VCs on the probability of exit

This table reports the results of a logit estimation using a successful exit dummy as the dependent variable. The successful exit dummy equals one if the entrepreneurial firm has a successful exit (i.e., initial public offering or mergers and acquisitions) and zero otherwise. The main independent variable is *Low average nation experience*, which is a dummy variable that equals one if the nation of the entrepreneurial firm accounts for less than a (1) 15 percent, (2) 10 percent or (3) 5 percent weighted average of worldwide investments among the VCs, and zero otherwise. This variable described in more detail under the "Data, Sample Selection, and Construction of Variables" section of the paper. All other independent variables are control variables described in Table 3 and in the "Construction of Variables" section. We also control for fixed effects in the first year of financing and in the nation of the entrepreneurial firm. *Frequency* reports total number of entrepreneurial firms backed by VCs with a *Low average nation experience* under a given condition. In parentheses are heteroskedasticity corrected robust standard errors, which are clustered on the nation of the firm. ***, **, and * represent statistical significance at the 1, 5, and 10 percent levels respectively.

	(1)	(2)	(3)
	Less than 15 percent	Less than 10 percent	Less than 5 percent
Low average nation experience VC	0.100 (0.0814)	0.101 (0.0618)	0.00654 (0.0915)
Number of rounds	-0.0603*** (0.00707)	-0.0607*** (0.00647)	-0.0667*** (0.00631)
Number of VCs	0.0762*** (0.0108)	0.0709*** (0.0100)	0.0803*** (0.00613)
VC age	-0.00588 (0.00547)	-0.00596 (0.00534)	-0.00381 (0.00549)
VC experience	-3.48e-05 (5.08e-05)	-2.37e-05 (4.47e-05)	-4.91e-05 (3.98e-05)
VC investment amount	0.332*** (0.0141)	0.332*** (0.0142)	0.333*** (0.0161)
Frequency	2,041	1,638	1,047
Observations	29,172	29,172	29,172
Pseudo R-sq	0.161	0.160	0.162

Table 8: Effect of no industry experience from at least one VC on the probability of exit

This table reports the results of a logit estimation using a successful exit dummy as the dependent variable. The successful exit dummy equals one if the entrepreneurial firm has a successful exit (i.e., initial public offering or mergers and acquisitions) and zero otherwise. The main independent variable here is *First time industry VC*, which is a dummy variable that equals one if at least one of the investing VCs in the entrepreneurial firm is investing in the entrepreneurial firm's industry for the first time, and zero otherwise. This variable is described in more detail under the "Construction of Variables" section of the paper. All other independent variables are control variables described in Table 3 and in the "Construction of Variables" section. We also control for fixed effects in the first year of financing, in the nation and in the industry of the entrepreneurial firm. In parentheses are heteroskedasticity corrected robust standard errors, which are clustered on the nation of the firm. ***, **, and * represent statistical significance at the 1, 5, and 10 percent levels respectively.

	(1)	(2)	(3)
	Emerging Nations	Developed Nations (excl. U.S.)	Developed Nations (incl. U.S.)
First time industry VC	0.246 (0.167)	-0.00569 (0.0597)	-0.0164 (0.0173)
Number of rounds	0.0436 (0.0578)	-0.0539 (0.0440)	-0.0594*** (0.00650)
Number of VCs	0.0929*** (0.0339)	0.113*** (0.0195)	0.0736*** (0.00904)
VC age	-0.00327 (0.0205)	0.00206 (0.0128)	-0.00607 (0.00558)
VC experience	-0.000272*** (8.69e-05)	-0.000121 (0.000103)	-2.73e-05 (3.95e-05)
VC investment amount	0.460*** (0.0568)	0.344*** (0.0300)	0.327*** (0.0117)
Observations	1,589	8,104	27,583
Pseudo R-sq	0.152	0.129	0.157

Table 9: Effect of no industry experience from all VCs on the probability of exit

This table reports the results of a logit estimation using a successful exit dummy as the dependent variable. The successful exit dummy equals one if the entrepreneurial firm has a successful exit (i.e., initial public offering or mergers and acquisitions) and zero otherwise. The main independent variable here is *No industry experience*, which is a dummy variable that equals one if all of the investing VCs are investing in the entrepreneurial firm's industry for the first time, and zero otherwise. This variable is described in more detail under the "Construction of Variables" section of the paper. All other independent variables are control variables described in Table 3 and in the "Construction of Variables" section. We also control for fixed effects in the first year of financing, in the nation and in the industry of the entrepreneurial firm. In parentheses are heteroskedasticity corrected robust standard errors, which are clustered on the nation of the firm. ***, **, and * represent statistical significance at the 1, 5, and 10 percent levels respectively.

	(1)	(2)	(3)
	Emerging Nations	Developed Nations (excl. U.S.)	Developed Nations (incl. U.S.)
No industry experience	0.313 (0.201)	0.0331 (0.0565)	-0.0455 (0.0418)
Number of rounds	0.000834 (0.0746)	-0.0976** (0.0454)	-0.116*** (0.00605)
Number of VCs	0.0963** (0.0482)	0.161*** (0.0190)	0.0788*** (0.0192)
VC age	-0.00807 (0.0220)	0.000106 (0.0136)	-0.00688 (0.00529)
VC experience	-0.000257*** (7.54e-05)	-0.000147 (0.000105)	-2.34e-05 (3.67e-05)
VC investment amount	0.463*** (0.0569)	0.327*** (0.0310)	0.325*** (0.00849)
Observations	1,589	8,104	27,583
Pseudo R-sq	0.148	0.130	0.151

**Table 10: Effect of uncommon industry preference from at least one VC
on the probability of exit**

This table reports the results of a logit estimation using a successful exit dummy as the dependent variable. The successful exit dummy equals one if the entrepreneurial firm has a successful exit (i.e., initial public offering or mergers and acquisitions) and zero otherwise. The main independent variable is *VC with uncommon industry preference*, which is a dummy variable that equals one if at least one of the investing VCs in the entrepreneurial firm has an industry preference that invests less than (1) 10 percent, (2) 5 percent or (3) 3 percent of total investments in the industry of the entrepreneurial firm, and zero otherwise. This variable is described in more detail under the "Data, Sample Selection, and Construction of Variables" section of the paper. All other independent variables are control variables described in Table 3 and in the "Construction of Variables" section. We also control for fixed effects in the first year of financing, the nation and the industry of the entrepreneurial firm. *Frequency* reports total number of entrepreneurial firms that have a *VC with uncommon industry preference* under a given condition. In parentheses are heteroskedasticity corrected robust standard errors, which are clustered on the nation of the firm. ***, **, and * represent statistical significance at the 1, 5, and 10 percent levels respectively.

	(1)	(2)	(3)
	Less than 10 percent	Less than 5 percent	Less than 3 percent
VC with uncommon industry preference	-0.0713** (0.0298)	-0.133** (0.0517)	-0.110*** (0.0422)
Number of rounds	-0.0645*** (0.00660)	-0.0703*** (0.00610)	-0.0689*** (0.00617)
Number of VCs	0.0698*** (0.00695)	0.0699*** (0.00908)	0.0696*** (0.00837)
VC age	-0.00434 (0.00517)	-0.00447 (0.00526)	-0.00422 (0.00495)
VC experience	-5.64e-05* (3.13e-05)	-5.44e-05 (3.51e-05)	-6.48e-05* (3.61e-05)
VC investment amount	0.338*** (0.0158)	0.339*** (0.0155)	0.340*** (0.0153)
Frequency	12,854	6,155	2,306
Observations	29,172	29,172	29,172
Pseudo R-sq	0.163	0.162	0.159

**Table 11: Effect of average uncommon industry preference from VCs
on the probability of exit**

This table reports the results of a logit estimation using a successful exit dummy as the dependent variable. The successful exit dummy equals one if the entrepreneurial firm has a successful exit (i.e., initial public offering or mergers and acquisitions) and zero otherwise. The main independent variable is *Uncommon industry preference*, which is a dummy variable that equals one if the investing VCs in the entrepreneurial firm combined have an industry preference that invests less than (1) 10 percent, (2) 5 percent or (3) 3 percent of total investments in the industry of the entrepreneurial firm, and zero otherwise. This variable is described in more detail under the "Data, Sample Selection, and Construction of Variables" section of the paper. All other independent variables are control variables described in Table 3 and in the "Construction of Variables" section. We also control for fixed effects in the first year of financing and in the nation of the entrepreneurial firm. *Frequency* reports total number of entrepreneurial firms that have VCs with *Uncommon industry preference* under a given condition. In parentheses are heteroskedasticity corrected robust standard errors, which are clustered on the nation of the firm. ***, **, and * represent statistical significance at the 1, 5, and 10 percent levels respectively.

	(1)	(2)	(3)
	Less than 10 percent	Less than 5 percent	Less than 3 percent
Uncommon industry preference	-0.103*** (0.0399)	-0.152** (0.0692)	-0.0723 (0.0790)
Number of rounds	-0.0713*** (0.00628)	-0.0723*** (0.00626)	-0.0695*** (0.00606)
Number of VCs	0.0589*** (0.00870)	0.0747*** (0.00840)	0.0628*** (0.00955)
VC age	-0.00371 (0.00516)	-0.00312 (0.00502)	-0.00270 (0.00482)
VC experience	-4.22e-05 (3.89e-05)	-6.46e-05* (3.58e-05)	-5.70e-05 (3.63e-05)
VC investment amount	0.342*** (0.0140)	0.336*** (0.0158)	0.342*** (0.0147)
Frequency	9,825	4,935	1,615
Observations	29,172	29,172	29,172
Pseudo R-sq	0.163	0.164	0.164