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The Effect Founder's Business and Technical Background on Access to External Equity Funding in Fintech Industry

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HONORS THESIS

The Effect Founder's Business and Technical Background on Access to External Equity Funding in Fintech Industry

BY Alexandria Iacoviello

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Submitted in partial fulfillment of the requirements for graduation
with honors in the Bryant University Honors Program
April 2022

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ABSTRACT

This paper explores which founder backgrounds – business, technology, or both – are the most significant when achieving funding for a Financial Technology (Fintech) start-up. The research examines a sample of 289 Fintech start-ups from the cities of Bangalore, Beijing, Berlin, and Boston. The primary source of information was from a data set on the platform GrowthEnabler (GE). Our measure of success was the amount of external equity funding the companies received. The controlled variables for the founders were gender, immigrant status, education level, and prior start-up experience. The firm controls were business type and firm age. The independent variable was founder background, classified by either business, technical, or both. This study makes a few different contributions, one of the most prevalent is that if you want to start-up a Fintech company, having a technical background is both positive and significant for receiving external funding in institutionally strong countries. Another key finding was that in institutionally weak countries, having both business and technical background is both positive and significant to receiving external funding. Finally, this study contributes to the profiling of fintech start-ups and their founders.

INTRODUCTION

Over the past five years, term Fintech has been trending in news headlines, college classrooms, and on social media, but what does it mean? According to a Congressional Research Service report from April 2020, the term *fintech* is newly developed, but represents a broad section of electronic payments that have existed since the 1960s. “Financial technology, or *fintech*, refers to the broad subset of financial innovations that apply new technologies to a financial service or product” (Scott, 2020). ATM machines, the use of plastic cards with magnetic strips, Venmo transactions, and more all fall into the category of fintech. However, today it is stereotyped as mobile banking and trading, and electronic currency (Mayor, 2021). While those are part of the industry, fintech is a result of the digital transformation of financial transactions and records. As the technology field is constantly innovating, Market Data Forecast suggests that “financial technology is projected to reach a market value of \$305 billion by 2025” (Market Data Forecast 2022).

Even governments are creating teams within their financial sectors to support and regulate fintech. The United States SEC has an office called “The Strategic Hub for Innovation and Financial Technology (FinHub) [which] coordinates the agency’s oversight and response regarding emerging technologies in financial, regulatory, and supervisory systems...” (SEC, 2022). With high growth projections, the fintech market is extremely attractive to entrepreneurs. The field is becoming highly saturated, as many people want to take advantage of the growing market (Scott, 2020).

The goal of this study is to determine what background is significant for fintech entrepreneurs that want to receive external equity funding. The question this study explores is; how does founder background influence the success of fintech start-ups cross-culturally? First, founder background is based off research on the entrepreneur’s education and experience. Next, this study is cross-cultural, looking at fintech start-ups in the cities of Bangalore, Beijing, Berlin, and Boston. In this study, the success of each start-up is measured by total funding. The research we are conducting is important because it can help other founders of fintech, or general start-up companies determine what they should be studying or building experience in. Additionally, this research will help fintech entrepreneurs determine what they should looking

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for in a co-founder. The study is also important because fintech is at the crossroads of economics and technology, which are two growing fields. The results of this study can help entrepreneurs to determine what skills they need to successfully receive funding.

There is previous research on various founding teams and performance of new ventures, but there is not a lot of research on this topic specifically for fintech start-ups. The research within this study seeks to determine the significance of founder background in receiving funding for a fintech new venture. The study is guided by the question: How does founder background effect access to external equity financing in different institutional contexts? I am going to compare institutionally strong countries with institutionally weaker countries. I hypothesize that in institutionally stronger countries, founders with only technical backgrounds will have a positive effect on external equity financing. I also hypothesize that in institutionally weaker countries, founders with both business and technical backgrounds will have a positive effect.

To answer these questions, I utilized a data set from the platform GrowthEnabler, which gave profiles on Fintech startups. I selected four cities for cultural variety: Bangalore, Beijing, Berlin, and Boston. Tech start-ups scale fast and have been known to help improve economies (Bala Subrahmanya, 2018). Corporate America sources a lot of technological business to India (Bala Subrahmanya, 2018). Additionally, in the United States, there are a lot of Venture Capitalists that are seeking investment in new technology start-ups (Cummings, 2003). Third, we wanted to have a country that is institutionally comparable to the United States (Koza, 1995) which is why I chose Germany, but there are still differences in cultural aspects. Originally, we had Istanbul as our fourth city, due to major cultural and institutional differences between Turkey and the other chosen countries. However, as we coded the data, we realized there was a lot of missing information that was crucial to the study. There is also a smaller sample size of companies, therefore we chose China. Due to the e-commerce and Internet finance growth in China (Loubere, 2017) there was a wide variety of Fintech startups to choose from in Beijing.

The study concludes that having a technical background is significant to receiving funding in all four countries. In institutionally strong countries, Germany and the United States, my hypothesis about technical only background having a positive effect on external equity financing was supported. In institutionally weak countries, China and India, my hypothesis

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about both business and technical backgrounds having a positive effect on external equity financing was also supported. Additionally, the other control variables provide more knowledge on the profile of fintech founders and start-ups. Education level, firm age, and number of employees were all significant variables in regard to the financial success of fintech start-ups. It was also discovered that 92% of fintech founders were male, over half had a graduate degree, over half had prior start-up experience, and only 15% of them were immigrants.

The results of this study will be able to support Fintech entrepreneurs in their research and education prior to starting-up their business. By choosing these four different countries, the results will also be able to help a wide range of entrepreneurs with understanding the investor interests and the relation between institutional differences and how their background can support their funding preparation.

LITERATURE REVIEW AND HYPOTHESIS

In regard to financing, a study conducted in Italy on CEO background concluded that there is a significant relationship between obtaining funding for innovative new ventures and the education level of the company CEO (Talia, 2016). The gap I will be filling is which specific backgrounds provide positive significance for fintech start-ups. Literature suggests that founders and founding teams with diversity within role, background, education, and experience are more successful. After reviewing a study done on team dynamic, it is evident that role diversity and varying backgrounds creates a more successful team (Hmieleski, 2007). The article, *A contextual examination of new venture performance: entrepreneur leadership behavior, top management team heterogeneity, and environmental dynamism*, helps to determine how diverse leadership styles effect Top Level Management Team performance. Heterogeneity was defined by the specialties, skill levels, and education of the top-level management team members, similar to diversity in background. Heterogenous teams were found to perform best when led by empowering leaders (Hmieleski, 2007).

Research also supports that founder success with new ventures varies depending on the support from institutions put in place. The article *Entrepreneurs' Social Skills and New Venture Performance: Mediating Mechanisms and Cultural Generality* investigates which skills are successful depending on institutions in place, which relates perfectly to research I am conducting. The study concluded that social and political skills have given startups great financial success. This is in countries where there is a democracy in place. They found that public networking, as politicians do, is harder with countries having other institutions, although they mentioned this is an area that could use more research (Baron, 2008). Moreover, research also indicates that when founders build up their experience through conferences, professional connections, educational qualifications etc. the stage of the start-up increases which is positively associated with outside support (Kumar, 2020). This specific study took place in India, which also indicated relevance to the need for building up a network in that country to achieve financial success.

However, the research is nonexistent in terms of how founders with business versus technical backgrounds influence these decisions total funding of a company. It is particularly important

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to research technical versus business backgrounds and their significance on total funding because fintech is the intersection of these two fields. How is a founder supposed to know what experience and education is most valuable to them when developing a fintech start-up? Therefore, this study will examine how founders' technical and/or business backgrounds affect their access to external equity financing.

Moreover, prior research focused these studies on the West (US and Europe) and we also do not know much about how these relationship between founders characteristics in terms of technical or business background and amount of financing differs across countries. Research lacks how institutions in different countries may support fintech founders. After reviewing the gaps within the research, I developed two hypotheses that compare fintech company founder backgrounds between institutionally strong and weak countries.

- **Hypothesis 1:** In institutionally strong countries, founders with technical backgrounds have a *positive effect* on the amount of external equity financing.
- **Hypothesis 2:** In institutionally weak countries, founders with technical and business backgrounds have a *positive effect* on the amount of external equity financing they receive.

In countries with more developed institutions, founders can trust those institutions to share ideas freely without a fear of stealing their ideas. Additionally, complementary assets/partners exist, for example, banks can help founders locate the appropriate resources to lift their business off the ground. In institutionally weaker countries, founders need to be able to advocate for themselves. There are not as many laws in place to protect founders from having their ideas being stolen. Additionally, having a business background gives you access to a network of investors and knowledge about the process of going through funding rounds. In both institutionally strong and weak countries an understanding of the technology is important since modern day fintech introduces innovative and disruptive technologies (Investopedia, 2021). However, the business background is only prevalent in institutionally weak countries because they do not have the resources to both support and protect entrepreneurs.

METHOD AND DATA

GrowthEnabler is a database with the purpose of providing various digital solutions that allows global enterprises to partner with, procure from and invest in emerging businesses (GrowthEnabler). The GrowthEnabler data set provided a considerably large number of startups to choose from to help test my hypothesis. When going through the database, there were certain criteria I took into consideration. To start, I wanted newer companies, so I set the year of establishment from 2013-present. I also chose four different cities, Beijing, Boston, Berlin and Bangalore. As I mentioned earlier I had originally chosen Istanbul, however the sample size was too small and lacked founder background info. I wanted an even spread of companies across the board, so I did more research and determined Bangalore, India was a good fit.

I chose these cities because I felt there was great cultural variety among them in terms of having different institutions in place. Additionally, fintech is big across all four countries, however, there are institutional differences between them. According to the World Bank Institutional Quality Index, Germany and the United States are institutionally stronger countries. In Figure 1 of the Appendix, the estimates of each individual institutional quality are listed for all four selected countries. Specifically, I focus on the Rule of Law Score, which measures a country's ability to enforce, follow, and create laws. Specifically, it covers things like contracts, property rights, the law enforcement, and the courts (Worldwide, 2022). The measurement scale is from -2.5 to a 2.5. As seen in Figure A, Germany and the United States have a 1.6 Rule of Law Institutional Quality Index score whereas India has a 0 and China has a -1.3 (Worldwide, 2022). China, India, Germany, and the United States provide institutional variety while still all being heavily invested in innovative technology.

Independent Variables Founder background was considered the independent variable, which was measured as either technical, business, or both. Technical backgrounds were defined as a variation of computer science, engineering, or data analytics. Business backgrounds were determined by various business concentrations including economics, finance, marketing and more. Few entrepreneurs were categorized as "others," which is a catch-all category for differing majors like history, English, and other arts categories that were not coupled with a

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technical or business background. Finally, “both” was defined as having technical and business experience or education. When coding their background; technical = 1, business = 2, others = 3, and both = 4.

Control Variables Individual characteristics of the founders are a crucial part to our study, as we are examining the diversity within their background as an effect on new venture performance. Gender was a variable measured by males = 0 and females = 1. We also looked at immigrant status, the coding showed non-immigrants = 0 and immigrants = 1. Their education was also a variable that was coded. We further identified their experience through looking at education level of the founders as well. The codes were as follows 0 = none – meaning no higher education, undergraduate degree = 1, graduate degree = 2, and doctoral degree = 3. These controlled variables allowed us to classify the forms of education and how deep they went into their academic career. Start-up experience was determined by researching LinkedIn profiles to see if they had developed or funded previous start-ups. If they had experience with new ventures, they received a 1 and if they did not, they received a 2. GrowthEnabler showed if some founders were a part of specific industries, these were coded as: retail =1, financial services = 2, banking = 3, marketing/communications = 4, technology =5, environment/energy = 6, wealth asset management = 7, computer science = 8, healthcare = 9, and academia = 10. Those founders that did not have an exact industry alignment were classified as “financial services” due to being within the fintech start-up database.

Next are the firm controls, the employee count was coded as 1 to 10 employees = 1, 11 to 50 employees = 2, 51 to 200 employees =3, 201 to 500 employees = 4, and 500+ employees = 5. The other firm control was firm age, and this was just labeled by the year of establishment. As mentioned earlier, the database was set to companies established from 2013-present.

Dependent Variable For this study, the dependent variable is external equity funding. When coded it was listed in GrowthEnabler as “total funding”, however it encompasses various investing rounds as opposed to bank loans. That is why it will be classified in this paper as external equity funding.

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RESULTS

To begin, a major contribution of this study is the profiling of fintech founders and start-ups. Figure 1 shows the descriptive statistics from the control variables, along with their mean, standard deviation, minimum, and maximum. In Appendix Figures 3-8 you can find the same data in pie graphs. The percentage of founders with either a business, technical, or both backgrounds. According to the pie chart in Figure 3, 66.10% of founders from the data set had only a business background. Only 10.27% had a technical background, which makes the results regarding technical only background even more significant.

Figure 1 Descriptive Statistics

Variables	Mean	Std. Dev.	Minimum	Maximum
Total Funding	8.35e+07	4.21e+08	0	4.80e+09
Technical Background	0.96	0.29	0	1
Technical and Business Background	0.24	0.43	0	1
Gender	0.08	0.27	0	1
Immigrant Status	0.42	4.71	0	1
Education Level	1.61	0.51	1	3
Prior Start-Up Experience	0.55	0.49	0	1
Firm Age	6.80	1.55	2	11
Employee Number	43.81	95.67	5	500

According to the individual controls located in Figures 3-8 of the appendix, 92.12% of the sample were male founders. All of the founders in this study had at least a college degree, with 58.90% of the founders having a graduate degree. Only 1.03% had doctorate's and

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40.07% have undergraduate degrees. Education was also found to be significant according to the Pairwise Correlation chart in Figure 9 of the appendix. Additionally, just over half of the founders had prior start-up experience. Finally, in terms of founder specific descriptive statistics, only 14.19% of the founders in the data set were immigrants.

According to Figure 9 the Pairwise Correlation table, when controlling for total funding, founder education level, firm age, and employee number were all significant. Located in Figure 8 of the appendix in the Firm Controls graph, the majority of companies had less than 30 employees, with 55.37% having 5 employees and 30.94% having 30 employees. Additionally, having a business background resulted in a negative significance overall, and having a technical background has a positive significance overall.

According to the results, *Hypothesis 1: In institutionally strong countries, founders with technical backgrounds have a positive effect on the amount of external equity financing*, is supported. Figure 10 in the Appendix includes the Regression Chart for Hypothesis 1, and when controlling for technical backgrounds in institutionally strong countries, the number is 1.21, which shows the regression coefficient is both positive and significant. According to *Hypothesis 2: In institutionally weak countries, founders with both business and technical backgrounds have a positive effect on the amount of external equity financing*, is also supported. Figure 11 in the Appendix the regression coefficient for Hypothesis 2, and when controlled for founders with both a business and technical background, the number was 1.04, which shows that the regression coefficient is both positive and significant.

DISCUSSION

The descriptive findings from this study suggest that the fintech industry is male dominated. This finding is not surprising, as finance and technology are two male dominated fields. However, the rate of female founders is alarming low at only about 7% of the founders in this study were female. Additionally, founders in the fintech industry are a well-educated group. Not only did all the founders in this study obtain at least a bachelor's degree but almost 60% had received a graduate degree as well. To build off the experience within this group, more than half of fintech founders in this study had prior start-up experience. Not only are they educated, but the majority understand the process of starting a business which, in an entrepreneurial education, is the most valuable way to learn about entrepreneurship.

Additionally, the descriptive statistics gave great insight into the profile of financially successful fintech start-ups. To start, employee count was a significant statistic in this study. Figure 8 shows the pie chart for Firm Controls, and an overwhelming majority of the companies have 30 employees or less. Small tech start-ups are big players due to their innovation and development of disruptive technologies. According to this study a total of 86.31% of the companies have 30 employees or less. Although it is not the primary goal of this paper, the data set and analysis of the results provide more information about the fintech start-ups, and as a newly recognized industry this data is helpful for the whole industry and entrepreneurs.

The findings suggest that a business degree is has an insignificant coefficient when starting a fintech company. While surprising, and further research should explore this theory more, it is not surprising that having the knowledge of the technology has a positive correlation with receiving external equity financing. Hypothesis 1 is supported by the data, *in institutionally strong countries, founders with technical backgrounds have a positive effect on the amount of external equity financing*. Investors appear to be more interested in the technological knowledge of the founders rather than the business knowledge, in institutionally strong countries. In the United States and Germany, investors have the knowledge of business and laws to be able to support an entrepreneur with only a technical background. In fact, they are

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seeking the technical knowledge of disruptive and innovative technologies. Intellectual property rights and patents protect founders from investors stealing on their inventions.

On the other hand, Hypothesis 2 was also supported, the significance of having a technical background depends on the institutions in place. Hypothesis 2 states, *in institutionally weak countries, founders with both business and technical backgrounds have a positive effect on the amount of external equity financing*. Funding in a country like China or India relies on technical knowledge because of the importance of conveying fintech innovation. However, you also need the business degree to attain access to the appropriate network to receive that funding. Research has shown that Chinese founders with adequate social skills achieve more financial success for their business (Baron, 2008, 283). Specifically in China, being able to communicate the effectiveness of your technology along with the business opportunity is important. The institutions are not as supportive as those in the United States and Germany. Founders in institutionally weak countries with only a technical background run the risk of bigger institutions, like banks, stealing their technology if they are unaware how to make a business deal.

LIMITATIONS AND FUTURE RESEARCH

The following data in this study was completely secondary data. Although we received a lot of information about the fintech industry and successful new ventures, some primary data sources would add more to the findings. Additionally, the Institutional Quality Index is measured on a scale and this study only explores 4 countries. Future research could look more into different countries at different points along the scale. Next, while individually coding 309 companies and cross-referencing that data with LinkedIn was a lot for one person, the sample size is still relatively small. Future research could explore a larger group of companies. Additionally, future research should look into more controls such as founder networks, funding sources, the extent of industry experience, founder age etc. Finally, it was interesting to learn that having only a business background was negatively correlated with receiving external equity financing. Future research should develop theories as to why this may be and explore if those looking to get into fintech should even pursue business education or experience at all.

PRACTICAL IMPLICATIONS

Overall, fintech is the intersection of the finance and technology fields and there has been no previous research as to whether having a business background or technical background effect the success of fintech start-ups. The result of this study concludes that in institutionally strong countries, like the United States and Germany, founders with technical backgrounds have a positive effect on external financing. Fintech entrepreneurs in more institutionally developed countries should build their technical knowledge through education and experience. The results of this study also show that while a technical background is still valued in institutionally weaker countries, it provides a positive effect on external equity financing when coupled with a business background as well. Fintech entrepreneurs in institutionally underdeveloped countries, like China and India, should focus on finding ways to integrate both business and technical knowledge into their education and experience.

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APPENDICES

Figure 1 – Institutional Quality Index Scores (China, India, Germany, and United States)

Row Labels	Sum
China	-2.0053469
Control of Corruption: Estimate	-0.27085
Government Effectiveness: Estimate	0.4137717
Political Stability and Absence of Violence/Terrorism: Estimate	-0.2310181
Regulatory Quality: Estimate	-0.1467606
Rule of Law: Estimate	-0.2667109
Voice and Accountability: Estimate	-1.503779
Germany	8.9178655
Control of Corruption: Estimate	1.843528
Government Effectiveness: Estimate	1.65318
Political Stability and Absence of Violence/Terrorism: Estimate	0.5877215
Regulatory Quality: Estimate	1.786195
Rule of Law: Estimate	1.614979
Voice and Accountability: Estimate	1.432262
India	-0.7870483
Control of Corruption: Estimate	-0.2419506
Government Effectiveness: Estimate	0.0868715
Political Stability and Absence of Violence/Terrorism: Estimate	-0.7648019
Regulatory Quality: Estimate	-0.2529919
Rule of Law: Estimate	-0.0012233
Voice and Accountability: Estimate	0.3870479
United States	7.5224475
Control of Corruption: Estimate	1.384251
Government Effectiveness: Estimate	1.557018
Political Stability and Absence of Violence/Terrorism: Estimate	0.2918175
Regulatory Quality: Estimate	1.631051
Rule of Law: Estimate	1.649322
Voice and Accountability: Estimate	1.008988
Grand Total	13.6479178

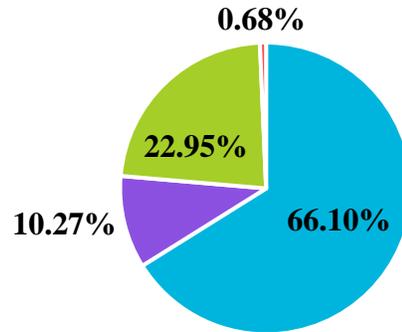
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Figure 2 – Descriptive Statistics Chart

Variables	Mean	Std. Dev.	Minimum	Maximum
Total Funding	8.35e+07	4.21e+08	0	4.80e+09
Technical Background	0.96	0.29	0	1
Technical and Business Background	0.24	0.43	0	1
Gender	0.08	0.27	0	1
Immigrant Status	0.42	4.71	0	1
Education Level	1.61	0.51	1	3
Prior Start-Up Experience	0.55	0.49	0	1
Firm Age	6.80	1.55	2	11
Employee Number	43.81	95.67	5	500

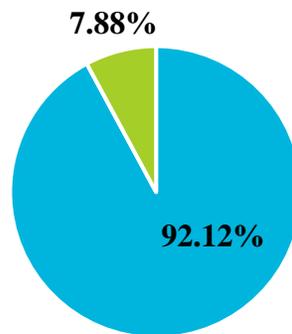
Figures 3-8 – Descriptive Statistics Pie Charts

Founder Background



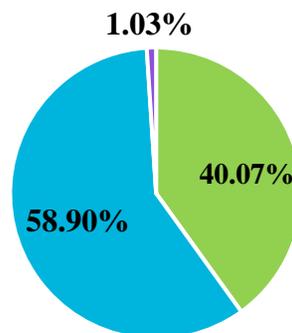
■ Business Only ■ Technical Only ■ Both ■ Other

Founder Gender



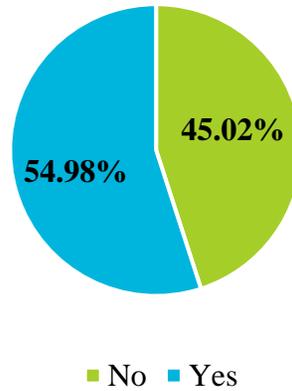
■ Male ■ Female

Level of Education

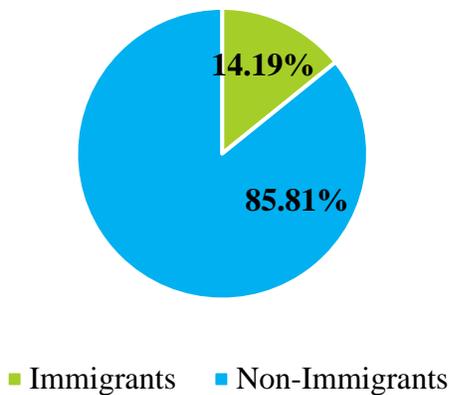


■ Undergrad ■ Grad ■ Doctorate

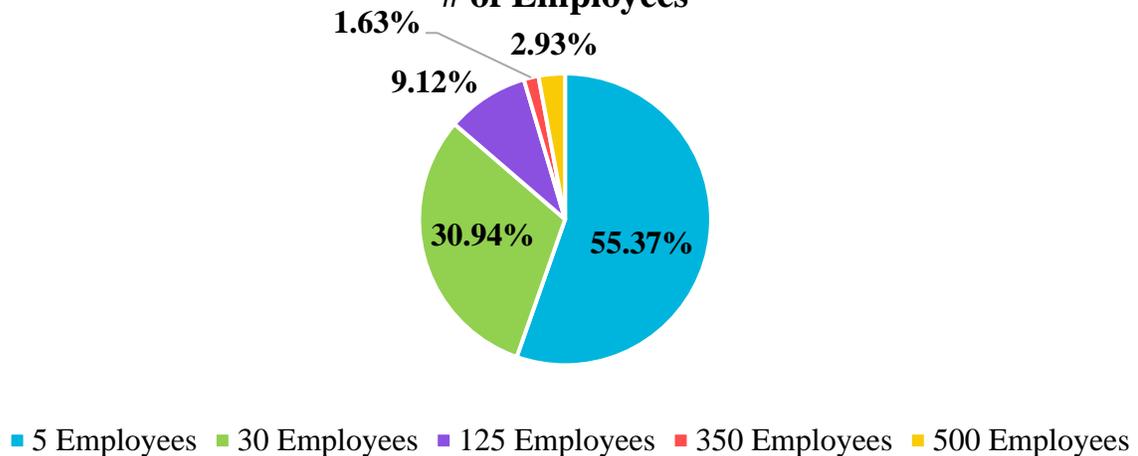
Prior Start-Up Experience



Founder Immigrant Status



of Employees



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Figure 9 – Pairwise Correlation Chart

PWCOR	Variables	Total Funding	Technical Background	Business Background	Tech and Bus. Background	Gender	Immigrant	Education Level	Prior Start-Up Experience	Firm Age	Number of Employees
1	Total Funding	1									
2	Technical Background	0.23*	1								
3	Business Background	-0.19*	-0.47*	1							
4	Tech and Bus. Background	0.002	-0.18*	-0.76*	1						
5	Gender	0.037	-0.02	0.06*	-0.07*	1					
6	Immigrant	-0.03	-0.02	-0.09*	0.11*	-0.01	1				
7	Education Level	0.14*	-0.95*	0.32*	-0.27*	0.05*	0.05*	1			
8	Prior Start-Up Experience	-0.02	-0.11*	0.13*	-0.06*	-0.04*	0.06*	0.04*	1		
9	Firm Age	0.24*	0.05*	0.02	-0.07*	-0.01	-0.01	-0.03	0.07*	1	
10	Number of Employees	0.32*	-0.01	0.03	-0.06*	-0.05*	-0.03	-0.01	0.15*	0.17*	1

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Figure 10 – Hypothesis 1 Regression Table

	Controls	Hypothesis 1
<i>Estimators</i> → <i>Variables</i> ↓	<i>Coef</i> (<i>s.e</i>)	<i>Coef</i> (<i>s.e</i>)
Technical Background		1.21* (0.54)
Female	0.10 (0.66)	0.62 (0.72)
Immigrant Status	-0.01 (0.01)	0 .001† (0.01)
Education Level	0.56 (0.34)	-0.15 (0. 43)
Prior Start-Up Experience	-0.36 (0.35)	-0.38 (0.54)
Firm Age	0.37* (0.12)	-0.10 (0.14)
Employee Count	0.46*** (0.13)	0.98*** (0.18)
R Squared	0.16	0.36

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Figure 11 – Hypothesis 2 Regression Table

	Controls	Hypothesis 2
<i>Estimators</i> → <i>Variables</i> ↓	<i>Coef</i> (<i>s.e</i>)	<i>Coef</i> (<i>s.e</i>)
Technical and Business Background		1.04* (0.44)
Female	0.10 (0.66)	-0.35 (0.897)
Immigrant Status	-0.01 (0.01)	-1.31* (0.58)
Education Level	0.56 (0.34)	0.19 (0.48)
Prior Start-Up Experience	-0.36 (0.35)	0.27 (0.47)
Firm Age	0.37* (0.12)	0.33* (0.17)
Employee Count	0.46*** (0.13)	0.52*** (0.14)
R Squared	0.16	

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Figure 12 – Descriptive Statistics for Institutionally Strong Countries

Variables	Mean	Std. Dev.	Minimum	Maximum
Total Funding	2.91e+07	9.99e+07	0	8.53e+08
Technical Background	0.06	0.24	0	1
Technical and Business Background	0.11	0.32	0	1
Gender	0.08	0.27	0	1
Immigrant Status	0.63	6.40	0	1
Education Level	1.69	0.46	1	2
Prior Start-Up Experience	0.69	0.46	0	1
Firm Age	6.75	1.60	2	11
Employee Number	33.74	71.50	5	500

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Figure 13 – Descriptive Statistics for Institutionally Weak Countries

Variables	Mean	Std. Dev.	Minimum	Maximum
Total Funding	1.29e+08	5.61e+08	20,000	4.80e+09
Technical Background	0.14	0.34	0	1
Technical and Business Background	0.38	0.49	0	1
Gender	0.08	0.26	0	1
Immigrant Status	0.17	0.37	0	1
Education Level	1.51	0.55	1	3
Prior Start-Up Experience	0.37	0.49	0	1
Firm Age	6.85	1.51	4	9
Employee Number	55.21	116.39	5	500

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Figure 14 – Variable Definition Chart

VARIABLE	DEFINITION	N	MEAN	MEDIAN	SD
Individual Level Controls					
Gender	Dummy =1 if founder is male.	292	0.787	0	0.268
Start-Up Experience	Dummy=1 if founder has prior start-up experience.				
Immigrant Status	Dummy= 1 if the founder is an immigrant to the country the business headquarters is in.	289	0.415	0	4.71
Education	1=undergraduate degree, 2=Graduate degree, 3=Doctorate degree	292	1.609	2	0.509
Technical Background	Dummy =1 if the founder has a technical background.	292	0.332	0	0.472
Business Background	Dummy = 2 if the founder has a business background.	292	0.890	1	0.313
Both Technical and Business Background	Dummy = 4 if the founder has both a technical and business background.	292	0.229	0	0.421
Firm Level Controls					
# of Employees	1= 5 employees, 2= 30 employees, 3=125 employees, 4= 350 employees, and 5= 500 employees	307	1.659	1	0.229
Firm Age	Total number of years operating.	307	6.798	7	1.555
Number of Co-Founders	Numerical value				

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