



Paper to be presented at the DRUID Academy Conference 2016 in Bordeaux,
France on January 13-15, 2016

Does Equity Crowdfunding help entrepreneurs in the subsequent financing by Venture Capitals?

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Abstract

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Keywords: equity crowdfunding; venture capital; business angels; signals

1. Introduction

Crowdfunding (CF) is a novel method for new entrepreneurial ventures to acquire financial resources. Scholarly understanding of the phenomenon is currently limited and mostly related to analysing the determinants of campaigns' success and motivations, mostly in the context of reward-based crowdfunding (e.g. Mollick, 2014; Colombo et al., 2015, Agrawal et al., 2014).

Equity crowdfunding is an open call made by entrepreneurs for raising financial resources through the Internet, in the hope to attracting a large group of investors (Ahlers et al., 2013). The investments take place on an online platform (such as, e.g., Crowdcube or Seedrs) that provides the necessary transaction services (legal services, pre-selection of start-ups, the ability to process financial transactions, etc.). After the passage of the JOBS (Jumpstart Our Business Startups) Act in the U.S., equity crowdfunding market is expected to increase. Thus, it is crucial to understand the relationship between equity crowdfunding and the other traditional forms of seed and early stage financing, i.e. venture capitalists (VCs) and business angels (BAs).

VCs' selection process of new ventures has been extensively analysed in the literature (Amit et al., 1998; Franke and Gruber, 2008; Gompers and Kovner, 2006; Higgins et al., 2011; Kirsch et al., 2009; Shane and Cable, 2002), while the relationship between BAs and VCs regarding their complement or substitute roles has been far less addressed (e.g. Hellman and Tiele, 2015).

In this paper I empirically examine the relationship between equity crowdfunding (EC), business angels (BAs) and venture capitalists (VCs). The objective of the paper is to determine if equity crowdfunding is a positive signal for subsequent funding by VCs, in comparison with angel

financing. In particular I address the following research questions: Equity crowdfunding and BAs are substitutes or complements in respect to VCs? What is the impact on performance of raising funding from different types of investors?

To answer to these research questions I use a dataset drawn from Crunchbase, a free online database of (mainly) technology companies, developed by TechCrunch. In the empirical analysis I investigate the dynamics of different investment patterns, specifically how prior investments relate to subsequent investment choices. First, I found evidence of persistence within investor types. A company, which have raised funding from one particular investor type has higher probability of obtaining subsequent funding from the same investor type. Second, I found a strong substitutes effect between EC and angel financing and a more complex relationship between EC and VC, which again supports the substitutes hypothesis.

The remainder of the paper is structured as follows. Section 2 addresses the theoretical background. Section 3 discusses the data sources and the variable definitions. Section 4 reports some descriptive statistics and the econometric results. Section 5 briefly concludes putting forward some avenues for future research.

2. Theoretical background

Since entrepreneurship is inherently uncertain, investors need to act on incomplete information, thus potential signals of companies' quality are particularly important (Spence, 1973, 1974). The entrepreneurial finance literature has listed a number different signals, which VCs and BAs take into account in their investment choices, i.e. endorsements from trusted third parties, the backgrounds of founders, the degree of preparation of business pitches made by entrepreneurs (Beckman et al., 2007; Kirsch et al., 2009; Sørensen and Fassiotto, 2011), patents and founders, friends and family money (Conti et al., 2011).

I argue that also equity crowdfunding and BA financing may act as a signal of venture quality for VCs. Prior research on the relationship between BA and VC investments is sparse and it has mainly proved that VCs and BAs are substitutes. Hellman and Thiele (2015) and Hellman et al. (2015) found that companies that obtain angel financing subsequently obtain less VC financing, and vice versa, with a stronger effect for companies funded by less experienced angels. Moreover, only in a small subsample of the analysed firms there is some interaction between BAs and VCs with no evidence that mixing the two types of funding is associated with significantly better performance. Also Goldfarb et al. (2012) found a similar negative effect of mixing angel

and VC funding, driven by split control rights, where angels preferences, more closely aligned with entrepreneurs, may result in a conflict of interest between angel investors and founders coalitions against VCs. However, the authors mainly focus on syndicated investment, where angels and VCs invest in the same round, which are not very common in the financing landscape. Kerr et al. (2011), using deal level data from two US prominent angel investment groups, demonstrated that financed start-ups experience superior outcomes than those that were rejected by the angel group, in term of higher survival rates, successful exits, employment levels, and patenting, whereas they did not find any significantly difference on access to future VC financing. Opposite to all of these previous works, Werth and Boert (2013), using a data set of US high-tech start-ups, found that ventures sponsored by better connected angel investors are more likely to receive subsequent funding by VCs, and BAs more often achieve an exit in the form of a trade sale or IPOs. In this case, BAs are supposed to play a validation role for the company quality, identifying better growth opportunities, and thus reducing the information asymmetry faced by VCs (Madill et al. 2005).

Comparing equity crowdfunding and angel financing, I expect that equity crowdfunding will be interpreted as a negative signal by VCs, possibly leading to worse ultimate company performances, since only the worst quality companies (the ‘lemons’), which did not manage to raise other ‘value adding’ seed financing, like BA and VC financing in the first place, should be more likely to resort to equity crowdfunding. The fragmented propriety generated by equity crowdfunding investments may be as well an obstacle in obtaining subsequent VCs funds, as VCs may be concerned with managing problems, especially if there are few investors who hold a relative considerable part of the equity, which also results in less profitable exit opportunities.

Finally, I also expect that BAs’ and VCs’ value adding role should improve companies’ performance and allow companies to reach a successful exit.

3. Methods

3.1. Data and sample

The sample is drawn from CrunchBase, a free online database (launched in 2007) of technological companies, developed and maintained by TechCrunch, the most influential technology blog in the US. Any community member can add information to the database, however data goes through an approval process before being made available online.

In order to investigate the dynamic investment patterns I use the financing rounds as the fundamental unit of analysis, in particular I consider all funding rounds of companies that have received an investment from at least one VC, one BA or through EC platforms. To ensure a comparable analysis between investment methods I dropped all rounds previous to 2007 (before which EC did not exist). Moreover I dropped all investments that took place before September 2014. Therefore, the time span between September, 2014 and September, 2015 (reference time of this study) represents the time for a start-up investment to show some sign of success, in terms of a later stage of financing, since the average time between seed investment and other forms of later stage financing is 18.1 months for all start-ups that received such funding. This procedure led to a final sample of 158,359 investments made by 25,822 unique investors in 45,058 companies. The investments comprise 84,099 financing rounds.

Investors have been classified into different investor type on the basis of the type of funding round and investors' category (i.e. organization or person). VC rounds are all rounds of type 'venture', in which the investor is an organization. EC rounds consist of all rounds of type 'equity crowdfunding', where the investor is an organization plus all rounds of type 'seed money', where the investor is a known equity crowdfunding platform (such as Seedrs, Crowdcube, Assob..). BA rounds are defined for all funding round type 'angel' plus the type 'seed money', where the investor is a person. BA category is further divided into BA organizations (i.e. if the investor is an organization in combination with the funding round type 'angel') and BA individuals (i.e. if the investor is a person). Finally, Other investors are a diverse group, consisting mainly of the remaining of 'seed money' rounds not included in the previous investor types, different forms of debt financing and grants, private equity and undisclosed rounds.

Table 1 provides the description for the variables used in the empirical analysis.

3.2. Descriptive Statistics

Table 2 reports descriptive statistics at the financing round level (Panels A-D). Panel A shows the breakdown of investments rounds and amounts across the sample. Of the 84,099 financing rounds 37,556 involve one or more VCs, 3,012 involve an EC platform, 7,669 one or more BAs, and 35,862 one or more Other investors. Panel A further provides information on the average funding amounts by investor category, differentiating between all rounds and the first round. As expected, the all-rounds column shows that VCs, BAs, and Other Investors have invested respectively \$11,200,000, \$943,000 and \$9,329,000 on average, the amount invested in the first

round decreases for all categories, whereas it remains almost the same for BAs, confirming that BAs are almost active in the first stage of company development. The amount invested in equity crowdfunding campaigns despite being equal to almost a half of BAs average funding corresponds to \$559,000 on an average round, which proves it as being a viable financing method for entrepreneurs. Moreover, the companies involved in half of equity crowdfunding rounds manage to raise additional equity crowd financing in second and third rounds, which account for 88% of those type of follow up rounds.

Panel B reports the average company age at the time of the first funding round and across all rounds by investor type. The average company is 3 years old at the time of their first financing round and 4 years old across all rounds. VCs, as expected, invest later, company age for rounds in which at least one angel invested is significantly lower, both at the first round and in all rounds, compare to EC rounds, possibly denoting that crowdfunding is still not able to replace angel financing at the seed stage of financing and fill the initial equity gap faced by start-ups.

Panel C provides data on the company's exit by September 2015, showing in last row of the table that 11.3% of the sample companies had exited through either an IPO or an acquisition, 5.5% of the them had failed, and the remaining 83.2% of the companies were still active by September 2015. The highest failure rate goes to EC rounds followed by BAs and VCs rounds, whereas the highest success rate corresponds, as expected, to companies invested by at least one VC (15.8% of all IPOs and acquisitions). However, these ones are followed by companies involved in at least one EC round, with a 13% successful exits realized and only at the third place we found successful BAs rounds, with 9.5% exit rate.

Finally, panel D reports the breakdown of the sector for the sample companies by investor type. We can observe that most of the companies are active in the ICT industry (Software and Hardware) (31%), Internet industry (30%), or Biotech (16%). Thus, taken together, high-tech companies account for nearly 80% of the companies in the sample.

4. Results

4.1 Empirical specification

In order to investigate the potential signalling role of equity crowdfunding and angel investing, I run a series of econometric models. In particular, I performed panel random effect OLS regressions and logistic regressions in order to assess the impact of previous equity crowdfunding or BAs rounds on the subsequent acquisition of other type of financing and in particular VC

funding. In the main specification the dependent variables are the cumulative amount of funding that a company received in a specific type of round corresponding to different investor types. The most important independent variables are the cumulative amount of funding that a company received from different investors types, up to the previous round of investing.

Controls comprise a set of variables that measure different time-variant round characteristics, including: (i) the amount raised in the previous round, (ii) the age at the time of the current round, (iii) a dummy for whether the round is syndicated by more than one single investor, (iv) the total number of single investors in the current round, (v) the VC and BA investing experience, proxied by the total number of previous rounds in which they were involved, and (vi) time fixed effects capturing any business cycles effects (years dummies). Moreover, a set of variables that measure time-invariant company characteristics was included, namely: (i) company age at the time of the first round, (ii) industry and (iii) country dummies. In all regressions I use the complete set of controls, even when not displayed in the tables for the sake of brevity, plus robust standard errors, clustered at the company level.

I must recognize that the panel OLS regressions might cause an endogeneity problem, i.e. the unobserved heterogeneity that creates a possible correlation between the error term and the dependent variable. In this current version of the paper I report in section 4.2 the results without any endogeneity correction, leaving for the future development of the paper the resolution of the issue of unobserved heterogeneity through instrumental variables, which I yet have to collect.

4.2 Results

4.2.1 Baseline model

Table 3 shows the estimation results for the baseline model. Columns 1-4 report the main models regarding the investment dynamics between different investor types. We can first note that the coefficients relative to the effect of prior financing by type on current financing of the same type (i.e. the main diagonal) are all positive and significant at the 1% level. This implies that companies that have received a particular type of funding are more likely to use that same type of funding in the future rounds. One possible explanation is that the result might be also driven by repeat investors, who invest in follow up rounds in the same company. Nevertheless the finding remains relevant since it demonstrates that it is difficult for a company to switch investor and more importantly to graduate to a different type, i.e. from BA to VC and from EC to VC, in fact the respective coefficients are positive but not significant (see Column 1). Moreover,

I found a significant negative relationship between angel and VC funding. If a company received more prior VC funding, it will raise less angel funding.

Regarding equity crowdfunding, we can see that raising capital through EC does not contribute to obtain any other type of funding. This suggests that EC is not a positive signal neither for VCs or BAs. Moreover, I found a significant negative relationship between angel funding and EC. If a company received more prior angel funding, it will raise less EC, and viceversa. This finding suggests the existence of a separate angel and EC market in the financial ecosystem and it is consistent with a substitution hypothesis between the two types of financing methods. Not surprisingly, there is a weak evidence for a positive relationship between prior VC funding and EC, in fact the effect is very small and the coefficient significant only at 10% level, suggesting that a previous endorsement by a VC constitutes, of course, a positive signal of firm quality for the crowd.

Finally, Table 3 shows some intuitive results for the control variables. For example, the likelihood of receiving VC funds increases with VCs' experience, company age in the current round and for syndicated rounds, while decreases with BAs' experience. The likelihood of receiving EC decreases with VCs' and BAs' experience and company age in the current round, while it increases for companies belonging to the Internet sector.

4.3. Different type of BA investors

Table 4 shows the same model specification of the baseline model, where the BAs investor category was divided in investment made by individual BAs and organized BA groups/networks. I found very similar results, except that we can see a negative relationship between EC and prior BAs funding related to individual angel investors, while prior investment from BA organizations are significantly positive correlated with subsequent VC funding amounts. Thus, according to this analysis, the substitution role between VCs and BAs is driven by individual angel investors.

I leave the analysis of different categories of other investors for further developments of the paper. For instance, grants and other type of seed financing might have different effects on dynamic investment patterns, in particular they might be worth exploiting in the case of equity crowdfunding.

4.4 Dummy variables model

Table 4 reports an alternative specification of the model presented Table 3. In table 4 the funding amounts are replaced with dummy variables, expressing the presence or absence of

investor types both in the current and in previous rounds, all else being hold equal. In columns 1, 3 and 5 the independent variables are modelled as impulse variables (assuming value one only in the previous round if the investor of type i is present and returning 0 in the following ones); in columns 2, 4 and 6 the independent variables are modelled as step variables (assuming value one from the round in which the investor of type i is present onwards). All the main results in general hold. The dynamic persistence of the same investor type is strongly confirmed as well as the substitution role between VCs and BAs and EC and BAs. Moreover from column 1 we can see a possible complementary role between VC and EC presence in the prior round, although it does not hold in the step variable model also probably because the number of VC rounds following EC are already imitate in comparison with all VC ones and, thus, it difficult to find companies in the sample with more than one round of VC after the EC round. This might be the same reason why the prior VC dummy step in the EC step model (column 4) show a negative significant sign in apparent contrast with the positive signalling role exerted by VC found in the model using raised funding amounts. However, we should take into account that companies with a VC in any prior round are less likely to turn to equity crowdfunding, instead when for some reason they did, which is captured by the model using raised investment amounts, they manage to raise higher amounts of EC funds.

4.5. Effects on performance

A potential concern about the substitutes pattern found is that it may be generated by poorly performing companies, which initially raised angel or EC financing, and then continued to rely on additional financing of the same investor type, because they were not good enough to ‘graduate’ to the VC stage.

To shade some light on this issue I examine how the different investment categories relate to company performance. Following prior literature on VC that focus on exit outcomes (e.g., Gompers and Lerner, 2004; Wang and Wang, 2010, 2012; Cumming and Johan, 2013), I defined a successful exit whether the company has undertaken an IPO or an acquisition, a failure if the company has gone bankruptcy, the remaining operating companies represent the baseline outcome category. I, then, applied a multinomial logit model on the sole sample of companies at least backed by one VC or one BA or involved in EC.

The results are reported in Table 6. VC backed companies are less likely to experience a failure in comparison to the other type of investors, the opposite holds true for BAs. I did not find

support for a positive relationship between VC and the probability of a successful exit for the subsample companies, whereas companies that have undergone at least an EC round are less likely to experience an IPO or an acquisition. This finding combined with the partial substitution patterns found in section 4.2 and 4.4 between EC/BAs and EC/VCS suggest that equity crowdfunding is not (yet) the best financing option for entrepreneurs, who want to raise additional round of funding from VCs, in comparison for example to BA organizations or achieve a profitable exit. If this is due to the intrinsic inferior quality of the companies that resort to equity crowdfunding itself remains an open question for future research.

5. Concluding Remarks

This paper has investigated the dynamic relationship between different types of investors, focusing in particular on the relation between equity crowdfunding and VCs/BAs. Using data obtained from Crunchbase, I found considerable support for the hypothesis that BAs and equity crowdfunding are substitutes. Companies that raised EC are less likely to obtain subsequent angel funding, and viceversa. The substitutes effect seems in particular to be driven by individual angel investors. The relation between EC and subsequent VCs is more nuanced, the involvement in a prior EC round is positive correlated with probability of raising subsequent VC finance, but I do not find support for the same pattern considering the investment amounts, thus it does not seem that higher amounts raised though EC help to obtain higher subsequent VC capital, which goes in the direction of a substitutes hypothesis. More research is, therefore, needed to shade light on this latter investment pattern.

Moreover, the work suggests a number of different avenues for future research. First, we need to understand the reasons behind the observed substitutes patterns. Are EC campaigns really funded by the ‘crowd’ or are these platforms used by BAs to increase their available set of investment opportunities? Do angels take part and to what extent in EC campaigns? Moreover, do companies funded through EC platforms results in incompatible governance systems in respect to BAs and VCs preferences?

Second, a future area of research is to investigate why these companies seems to have higher failure rates and less successful exit. The known selection vs treatment effect: are the companies that resort to equity crowdfunding the lower quality ones, which were not able to raise other types of ‘intelligent’ financing or do they are more likely to fail because they did not

receive the additional support in terms of advise, networking, etc.. that other investor are able to provide?

Third, related to the previous point, there it is important to address the possible policy implications for the regulation and the development of the equity crowdfunding market. Government policies, such as tax incentives and similar, which are in part already in place (for example on UK platforms) are worth to be directed to this market only if they have a real chance of improving the financing environment of start-ups and economic growth, otherwise such instruments are better to be directed to the traditional forms of financing.

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Tables

Table 1. Variable Definitions

Variables	Description
	Main Dep & Indep
<investor type> raised amount	Natural logarithm of the cumulative investment amount in the current round by investors of type <investor type>
Prior <investor type> raised amount	Natural logarithm of the prior cumulative investment amount by investors of type <investor type>
<investor type> dummy	Dummy equal to 1 if at least one investor of type <investor type> is present in the current round
Prior <investor type> dummy step	Dummy equal to 1 if at least one investor of type <investor type> is present in the prior round
<investor type> invested	Dummy equal to 1 if at least one investor of type <investor type> has invested in the company
Company Status	Categorical variable equal to (by August, 2015): 1 if the company has exited through an IPO or acquisition, 2 if the company has failed, 3 if the company is operating
	Company characteristics
Industry dummies	Set of dummy variables for each of the following industries: Internet; Biotech; Cleantech; ICT; Health Care; Manufacturing; Other
Country dummies	Set of dummy variables for each country.
	Controls
Age at First Round	Company's age measured at time of first financing round (in years)
Age at Round	Company's age measured at time of current financing round (in years)
Synd	Dummy equal to 1 if the current round is syndicated by at least two single investors
N investors	Total number of single investors in the current round
VC Experience	Total number of prior rounds in which the most experienced (by round count) VC investor of the current round has participated
BA Experience	Total number of prior rounds in which the most experienced (by round count) BA investor of the current round has participated
Synd_ti	Dummy equal to 1 if the company has at least one syndicated round
N Rounds	Total number of rounds per company
Total funding	Natural logarithm of the cumulative investment amount per company in all rounds
Year dummies	Set of dummy variables for each funded year

Table 2. Descriptive Statistics

Panel A: Investments										
Investor type	All Rounds		First Round		All Rounds		First Round			
	N	%	N	%	Avg. raised amount (if amt \$>0)		Avg. raised amount (if amt \$>0)			
VC	37,556	44.66	36,576	43.49	11,200,000		8,198,923			
Equity Crowd	3,012	3.58	1,544	1.84	558,764		460,643			
BA	7,669	9.12	4,612	5.48	943,270		939,194			
Other	35,862	42.64	41,367	49.19	9,329,183		8,187,081			
Total	84,099	100	84,099	100	9,530,000		7,419,584			

Panel B: Company Age						
	All Rounds	VC	Equity Crowd	BA	Other	
Age at First Round	2.65	3.23	2.12	1.08	2.28	
Age at Round	3.65	4.77	2.64	1.36	2.87	

Panel C: Company Exits							
Investor type	IPO or Trade sale	%	Failure	%	Operating	%	Total
VC	2,305	15.80	836	5.73	11,447	78.47	14,588
Equity Crowd	149	12.89	78	6.75	929	80.36	1,156
BA	558	9.54	360	6.16	4,928	84.30	5,846
Other	578	5.73	482	4.78	9,030	89.49	10,090
Total	3,590	11.33	1,756	5.54	26,334	83.13	31,680

Panel D: Industries										
	All Rounds		VC		Equity Crowd		BA		Other	
	N	%	N	%	N	%	N	%	N	%
Biotech	6,937	15.67	4,833	21.07	44	4.89	50	1.56	2,010	11.67
Cleantech	2,098	4.74	1,309	5.71	90	10.00	42	1.31	657	3.81
Health Care	3,662	8.27	2,112	9.21	27	3.00	150	4.68	1,373	7.97
ICT	13,505	30.50	7,187	31.33	205	22.78	1,110	34.61	5,003	29.04
Internet	13,121	29.63	5,605	24.43	226	25.11	1,628	50.76	5,662	32.87
Manufacturing	2,455	5.54	1,422	6.20	145	16.11	74	2.31	814	4.73
Other	2,499	5.64	475	2.07	163	18.11	153	4.77	1,708	9.91
Total	44,277	100	22,943	100	900	100	3,207	100	17,227	100

Table 3. Baseline Model – Panel OLS Regressions

	VC raised amount	EC raised amount	BA raised amount	Other raised amount
Prior VC raised amount	0.2890*** (0.0153)	0.0014* (0.0008)	-0.0668*** (0.0063)	-0.0834*** (0.0119)
Prior EC raised amount	0.089 (0.0981)	0.2582*** (0.0850)	-0.0609** (0.0273)	-0.1949*** (0.0731)
Prior BA raised amount	0.0030 (0.0219)	-0.0024** (0.0012)	0.0583*** (0.0160)	-0.0014 (0.0191)
Prior Other raised amount	0.0782*** (0.0178)	0.0006 (0.0008)	-0.0416*** (0.0096)	0.0781*** (0.0162)
Synd	4.1544*** (0.2124)	-0.0184 (0.0122)	0.1075 (0.1063)	-1.6844*** (0.1828)
N investors	0.0119 (0.0413)	0.0008 (0.0021)	0.3235*** (0.0325)	0.1520*** (0.0374)
BA Experience	-0.0368*** (0.0023)	0.0002 (0.0001)	0.0166*** (0.0014)	0.0181*** (0.0018)
VC Experience	0.0101*** (0.0006)	-0.0001* (0.0000)	-0.0044*** (0.0003)	-0.0049*** (0.0005)
Age at Round	0.1650*** (0.0399)	-0.0066*** (0.0026)	-0.1549*** (0.0120)	0.0405 (0.0400)
Age at First Round	-0.1449*** (0.0444)	0.0041 (0.0026)	0.1114*** (0.0127)	0.023 (0.0451)
Biotech	2.9209*** (0.8132)	0.0042 (0.0103)	-0.1071 (0.5399)	2.2089*** (0.7774)
Cleantech	2.0864** (0.8623)	0.0132 (0.0095)	-0.018 (0.5435)	2.7634*** (0.8266)
Health Care	2.6459*** (0.8233)	0.0167 (0.0228)	0.0437 (0.5477)	2.2447*** (0.7884)
ICT	1.9758** (0.7923)	0.0122 (0.0090)	0.5143 (0.5436)	1.7599** (0.7567)
Internet	1.9496** (0.7916)	0.0564*** (0.0209)	0.4695 (0.5442)	1.7676** (0.7557)
Manufacturing	2.4220*** (0.8451)	-0.0003 (0.0157)	0.2626 (0.5496)	1.6886** (0.7999)
N. obs	8530	8530	8530	8530
R Square	0.3288	0.2222	0.1822	0.1235

Table 4. Different BA investors – Panel OLS Regressions

	VC raised amount	EC raised amount	Other raised amount
Prior VC raised amount	0.2878*** (0.0149)	0.0015** (0.0008)	-0.0848*** (0.0116)
Prior BA organization raised amount	0.3430** (0.1433)	0.0014 (0.0011)	-0.2942*** (0.0361)
Prior BA individual raised amount	-0.0073 (0.0230)	-0.0026* (0.0013)	-0.0128 (0.0202)
Prior EC raised amount	0.0881 (0.0980)	0.2583*** (0.0850)	-0.1969*** (0.0732)
Prior Other raised amount	0.0778*** (0.0177)	0.0007 (0.0008)	0.0786*** (0.0163)
Synd	4.1514*** (0.2124)	-0.0184 (0.0122)	-1.6776*** (0.1827)
N investors	0.0126 (0.0414)	0.0008 (0.0021)	0.1527*** (0.0373)
BA Experience	-0.0368*** (0.0023)	0.0002 (0.0001)	0.0181*** (0.0018)
VC Experience	0.0101*** (0.0006)	-0.0001* (0.0000)	-0.0049*** (0.0005)
Age at Round	0.1645*** (0.0400)	-0.0067*** (0.0026)	0.0382 (0.0400)
Age at First Round	-0.1447*** (0.0445)	0.0041 (0.0026)	0.0243 (0.0450)
Biotech	2.9076*** (0.8148)	0.0031 (0.0102)	2.2021*** (0.7773)
Cleantech	2.0738** (0.8638)	0.0119 (0.0093)	2.7554*** (0.8263)
Health Care	2.6269*** (0.8248)	0.0157 (0.0223)	2.2438*** (0.7883)
ICT	1.9640** (0.7939)	0.0112 (0.0089)	1.7633** (0.7566)
Internet	1.9451** (0.7931)	0.0554*** (0.0206)	1.7664** (0.7555)
Manufacturing	2.4098*** (0.8467)	-0.0013 (0.0156)	1.6829** (0.7998)
N. obs	8530	8530	8530
R Square	0.3288	0.2222	0.1235

Table 5. Alternative Specifications – Dummy variables

	VC	VC step	EC	EC step	BA	BA step	Other	Other step
Prior VC dummy	1.4554*** (0.0600)	1.3632*** (0.0588)	0.0984 (0.5848)	-1.6279** (0.8092)	-1.8920*** (0.2575)	-1.9434*** (0.2468)	-1.1257*** (0.0603)	-1.0596*** (0.0583)
Prior EC dummy	0.7767*** (0.2329)	-0.0143 (0.2132)	3.9924*** (0.3921)	4.7024*** (0.4040)	-1.7565** (0.8886)	-1.0132* (0.5700)	-1.1174*** (0.2705)	-0.6229** (0.2858)
Prior BA dummy	0.101 (0.0868)	0.1350* (0.0734)	-13.0791*** (0.2705)	-0.9133 (0.8149)	0.8531*** (0.1313)	0.7734*** (0.1185)	-0.4728*** (0.0952)	-0.4227*** (0.0802)
Prior Other dummy	0.0864 (0.0558)	-0.1367** (0.0531)	-0.8641 (0.6029)	-1.2706** (0.6045)	-0.2766** (0.1288)	-0.4453*** (0.1220)	0.1559*** (0.0541)	0.3610*** (0.0502)
N. obs	20983	20983	20983	20983	20983	20983	20983	20983
Log Likelihood	-10747	-10766	-276.2	-263.9	-4360	-4354	-11041	-11051
Pseudo R Square	0.2502	0.2488	0.3189	0.3088	0.2805	0.2816	0.1809	0.1802

Table 6. Company Outcomes – Multinomial Logistic Regression

	Successful Exit	Failure
VC invested	-0.2390 (0.1459)	-0.6224*** (0.2016)
BA invested	0.0762 (0.1371)	0.4509** (0.1964)
EC invested	-0.2232** (0.1106)	0.0634 (0.1743)
Age at First Round	0.0155*** (0.0052)	-0.0509*** (0.0149)
Synd_ti	0.6261*** (0.0830)	0.1523 (0.1100)
N Rounds	-0.0688*** (0.0218)	-0.3559*** (0.0488)
Total Funding	0.0459*** (0.0118)	-0.0116 (0.0098)
Biotech	0.3886 (0.3686)	2.0833** (1.0381)
Cleantech	-0.6989* (0.3908)	2.3995** (1.0390)
Health Care	-0.1048 (0.3798)	2.0129* (1.0503)
ICT	0.0432 (0.3599)	2.2105** (1.0238)
Internet	0.3011 (0.3604)	2.7871*** (1.0229)
Manufacturing	-0.161 (0.3794)	2.3300** (1.0407)
N. obs		9238
Log Likelihood		-5094
Pseudo R Square		0.1599