

Marko Bender

Spatial Proximity in Venture Capital Financing

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Marko Bender

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A Theoretical and Empirical Analysis
of Germany



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RESEARCH

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Für meine Eltern,
ihre unendliche Liebe, unermüdliche Unterstützung
und grenzenloses Vertrauen.

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List of Abbreviations

AIC	Akaike Information Criterion
Betw.	Between
Bus.	Business
BVK	Bundesverband deutscher Kapitalbeteiligungsgesellschaften
CEO	Chief executive officer
CFO	Chief financial officer
Coef.	Coefficient
COO	Chief operating officer
Coop.	Cooperative
CVC	Corporate venture capital
Dep.	Dependent
Dev.	Development
Df	Degrees of freedom
Diff.	Difference
Dist.	Distance
EVCA	European private equity and venture capital association
Exec.	Executive
Exp.	Expenses or experience depending on context
F.e.	Fixed effects
FRG	Federal Republic of Germany
Fundr.	Fundraising
GDR	German Democratic Republic
Ger.	Germany
GICS	Global Industry Classification Standard
HHI	Herfindahl-Hirschman Index
HTGF	High Tech Gründerfond
Indep.	Independent
Inst.	Institution
Inv.	Investment(s) or investor(s) depending on context
IPO	Initial public offering
KfW	Kreditanstalt für Wiederaufbau

Km	Kilometer
Ln	Natural logarithm
LR	Likelihood ratio
M&A	Mergers and acquisitions
Max.	Maximum
Min.	Minimum or minutes depending on context
MBG	Mittelständische Beteiligungsgesellschaft
Mgt.	Management
MSCI	Morgan Stanley Capital International
No.	Number
Obs.	Observations
OL	Ordered logistic
PE	Private equity
Prod.	Product
Prof.	Profitable
RAM	Reinforcement-Affect-Model
R&D	Research and development
REL	Rare event logistic
SC	Small cap
S.d.	Standard deviation
Shipp.prod.	Shipping product
Subs.	Subsidiary
Synd.	Syndication
UK	United Kingdom
US	United States
Var.	Variable
VC	Venture capital or venture capitalist depending on context
Vol.	Investment volume
ZEW	Zentrum für Europäische Wirtschaftsforschung

List of Symbols

C_{ET}	Entrepreneurial team cooperates
C_{VC}	Venture capitalist cooperates
D_{ET}	Entrepreneurial team defects
D_{VC}	Venture capitalist defects
i	Venture capitalist
I	Number of venture capitalists
j	Index of observation
k	industry segments / investment stages
K	Number industry segments / investment stages
N	Sample size
r	VC investment round
R	Number of VC investment rounds
r_i	VC investment round of venture capitalist i
R_i	Number of VC investment rounds of venture capitalist i
\mathbf{W}	Weighting matrix
w_1 / w_0	Fraction of ones (event) /zeros (no event) in the sample relative to the fraction of ones / zeros in the population
\mathbf{X}	Matrix of explanatory variables
\mathbf{x}_j	Vector of explanatory variables
Y_j	Observation j
$\hat{\beta}$	Estimator of regression coefficients
$\tilde{\beta}$	Estimator of regression coefficients that is corrected for rare events
$\hat{\pi}_j$	Estimator of the probability of a certain event $Y_j=1$