

# Continued Entrepreneurship and Small Firm Growth

Per Davidsson

## AKADEMISK AVHANDLING

som för avläggande av ekonomie  
doktorsexamen vid Handelshögskolan  
i Stockholm framlägges till offentlig granskning  
fredagen den 2 juni 1989, kl. 10.15  
i sal Ragnar å högskolan, Sveavägen 65  
Stockholm 1989

# Contents

<b>1. AN ECONOMIC-PSYCHOLOGICAL APPROACH TO CONTINUED ENTREPRENEURSHIP IN SMALL FIRMS</b>	<b>1</b>
<b>1.1 Introduction</b>	<b>1</b>
<b>1.2 The Problem</b>	<b>3</b>
<b>1.3 Purpose</b>	<b>4</b>
<b>1.4 Definitions</b>	<b>5</b>
1.4.1 The Concept of "Small Firm"	5
1.4.2 Entrepreneurs and Continued Entrepreneurship	5
<b>1.5 Research Approach</b>	<b>8</b>
<b>1.6 The General Framework</b>	<b>10</b>
<b>1.7 A Preview of Subsequent Chapters</b>	<b>12</b>
<b>2. THEORETICAL BACKGROUND AND PREVIOUS STUDIES</b>	<b>15</b>
<b>2.1 Approaches to the Study of Entrepreneurship</b>	<b>15</b>
<b>2.2 A Review of Some Relevant Theories</b>	<b>15</b>
2.2.1 A Briefing on The Entrepreneur in Different Theories of The Firm	15
2.2.2 Some Economists' Views on the Entrepreneur and the Entrepreneurial Function	17
2.2.3 Theories of Company Growth	19
2.2.4 Sociological Theories	22
2.2.5 Psychological Theories	23
2.2.5.1 Theories of Individual Motivation	23
2.2.5.2 Theories of Human Decision Making	27
<b>2.3 Previous Empirical Studies</b>	<b>33</b>
2.3.1 Empirical Entrepreneurship Research	33

2.3.2	External and Firm-Related Factors	33
2.3.2.1	External Factors	33
2.3.2.2	Firm Age, Firm Size, Profitability, and Growth Rates	36
2.3.3	Characteristics of Entrepreneurs	37
2.3.3.1	Background Characteristics	37
2.3.3.2	Risk-taking	38
2.3.3.3	Need for Achievement	39
2.3.3.4	Locus-of-Control, Self-Confidence, and Optimisism	40
2.3.3.5	The Profit Motive	41
2.3.3.6	Other Motivational Factors and Personal Values	42
2.3.4	Are They All the Same?	43
2.4	The General Framework Revisited	43
2.4.1	How the Reviewed Theories and Results Relate to the Framework	43
2.4.2	Some Empirical Problems	46
3.	METHOD	51
3.1	Introduction	51
3.2	Choice of Method	51
3.3	Data Collection	52
3.3.1	The Sample	52
3.3.2	Questionnaire Data	55
3.3.3	Data From External Sources	56
3.4	Data Analysis and Interpretation of the Results	57
3.4.1	General Issues	57
3.4.2	Conventional Data Analysis Methods Used	58
3.4.3	Partial Least Squares (PLS) Analysis	59
3.4.4	Evaluation of Results	64
4.	DETERMINANTS OF GROWTH	67
4.1	Introduction to Analyses of Growth and Growth Motivation	67
4.2	Analyses of Determinants of Previous Growth	70

4.2.1	Introduction	70
4.2.2	Specification of Variables Used in the Analyses	71
4.2.2.1	The Dependent Variable	71
4.2.2.2	The Explanatory Variables	71
4.2.3	Expected Relationships	73
4.2.4	Results	74
4.2.4.1	The First-Order Model	74
4.2.4.2	The Second-Order Model	75
4.2.4.3	Industry Differences and Similarities	78
4.2.5	Summing Up the Analyses	81
	Appendix to Chapter 4	85
5.	DETERMINANTS OF GROWTH MOTIVATION	89
5.1	Introduction	89
5.1.1	On the Use of Subjective Measures	89
5.1.2	An Introduction to the Analyses	91
5.2	Variables Used in the Analyses	93
5.2.1	The Target Variables	93
5.2.2	Explanatory Variables	95
5.3	Analyses of Subset Models	95
5.3.1	Ability Models	95
5.3.1.1	Explanatory Factors and Expected Relationships	95
5.3.1.2	Results for the Preliminary Ability Model	96
5.3.1.3	The Revised Ability Model	99
5.3.2	Need Models	99
5.3.2.1	Explanatory Factors and Expected Relationships	99
5.3.2.2	Results for the Preliminary Need Model	100
5.3.2.3	The Revised Need Model	103
5.3.3	Opportunity Models	104
5.3.3.1	Explanatory Factors and Expected Relationships	104
5.3.3.2	Results for the Preliminary Opportunity Model	106
5.3.3.3	The Revised Opportunity Model	106

5.4	<b>Total Models</b>	108
5.4.1	<b>The Preliminary Total Model</b>	108
5.4.2	<b>The Final Total Model</b>	109
5.5	<b>Industry Differences and Similarities</b>	115
5.6	<b>Summing Up the Analyses</b>	119
5.7	<b>Discussion of the Results Regarding Determinants of Previous Growth and Growth Motivation</b>	120
	<b>Appendix to Chapter 5</b>	131
6.	<b>ENTREPRENEURIAL TYPOLOGY</b>	139
6.1	<b>Introduction</b>	139
6.1.1	<b>Relation to Previous and Following Chapters</b>	139
6.1.2	<b>Entrepreneurial Typologies</b>	139
6.1.3	<b>The Purpose of this Chapter</b>	142
6.2	<b>The Hypothesis</b>	143
6.3	<b>Analysis Method</b>	144
6.4	<b>Results</b>	145
6.4.1	<b>Results as Regards the Hypothesis</b>	145
6.4.2	<b>Additional Characteristics of the Clusters</b>	150
6.4.3	<b>Results of Further Splits</b>	152
6.5	<b>Discussion</b>	155
	<b>Appendix to Chapter 6</b>	159
7.	<b>SOME ELABORATIONS ON THE NEED FOR ACHIEVEMENT AND ENTREPRENEURIAL ACTIVITY IN SMALL FIRMS</b>	161
7.1	<b>Introduction</b>	161
7.2	<b>McClelland's View</b>	161
7.3	<b>Operationalization of Achievement Motivation</b>	162
7.4	<b>Hypotheses</b>	165
7.4.1	<b>Need for Achievement and the Entrepreneurial Decision</b>	165
7.4.2	<b>Need for Achievement and Expansion</b>	166

7.4.3	Need for Achievement and Innovativeness	167
7.5	Results	167
7.6	Discussion	173
8.	ARE THE SMALL HIGH-TECH FIRMS DIFFERENT?	177
8.1	Introduction	177
8.1.1	A New Type of Small Firms and Small Firm Managers?	177
8.1.2	Previous Studies on Small High-Tech Firms	178
8.1.3	The High-Tech Sample and the Comparison Groups	179
8.1.4	Areas of Investigation	180
8.2	Analysis	180
8.2.1	Background Characteristics of the Firms and Their Managers	180
8.2.2	Psychological Characteristics and Motivation	184
8.2.2.1	Psychological Profile	184
8.2.2.2	Factors Contributing to Satisfaction	186
8.2.3	Dealings with the Environment	188
8.2.3.1	Sources of Ideas and Advice	188
8.2.3.2	Access to Finance and Labor Force	189
8.2.4	Entrepreneurial Origin and Continued Entrepreneurship	189
8.2.4.1	Foundation of Firms	189
8.2.4.2	Growth Issues	192
8.2.4.3	Geographic Market Dispersion	196
8.2.4.4	New Product Development	197
8.2.5	A Multivariate Analysis	200
8.3	Discussion	203
9.	CONCLUSIONS AND IMPLICATIONS	208
9.1	Introduction	208
9.2	Conclusions: Some Major Points	208
9.3	Implications for Policy-Making	213
9.4	Suggestions for Research	219

9.4.1 An Evaluation of the General Framework	219
9.4.2 Some Additional Ideas for Future Research	220
9.5 On Choices and Their Consequences	224
9.6 A Final Word	226
<b>GENERAL APPENDICES</b>	<b>229</b>
General Appendix 1: The Questionnaires	229
General Appendix 2: Sample Description	245
General Appendix 3: Descriptive Data for Key Variables	249
<b>REFERENCES</b>	<b>255</b>